



# *Economic Development and Cultural Change*

THE UNIVERSITY OF CHICAGO  
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E C O N O M I C    D E V E L O P M E N T  
A N D    C U L T U R A L    C H A N G E

A journal designed for exploratory discussion of the problems of economic and cultural change. Preliminary versions of research findings and research hypotheses are welcomed in the interest of provoking constructive and fruitful discussion.

R. Richard Wohl, Editor

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In 1951, the Norman Wait Harris Memorial Foundation, of the University of Chicago, sponsored a special institute on Technical Aid and the Progress of Underdeveloped Areas, which resulted in a series of documents we would like to call to the attention of the readers of this journal.

A small edition of a stenographic report of the meetings was prepared for limited circulation. This Research Center has now in its possession the remaining stock of this volume which it will be glad to distribute, without charge, to those of its readers who may find it useful. Since the number of copies is limited, we shall fill requests in the order in which they are received until the supply is exhausted.

Jointly with the conference deliberations, a series of public lectures were delivered at the Institute which have since been published in a separate volume: The Progress of Underdeveloped Areas (edited by Bert F. Hoselitz, University of Chicago Press, 1952, \$4.75). The editor of this journal has in his possession a small supply of the individual papers included in this volume (the titles of which are listed below) which he will be glad to send to interested scholars, on request, so long as his small supply lasts. The available papers are: (Please choose no more than two titles.)

- Gerschenkron, Alexander. "Economic Backwardness in Historical Perspective."
- Lamb, Robert K. "Political Elites and the Process of Economic Development."
- Handlin, Oscar. "International Migration and the Acquisition of New Skills."
- Easterbrook, W. T. "State Control and Free Enterprise in Their Impact on Economic Growth."
- Linton, Ralph. "Cultural and Personality Factors Affecting Economic Growth."
- Herskovits, Melville J. "The Problem of Adapting Societies to New Tasks."
- Levy, Marion J. "Some Sources of the Vulnerability of the Structures of Relatively Nonindustrialized Societies to Those of Highly Industrialized Societies."
- Opler, Morris E. "The Problem of Selective Culture Change."
- Goldschmidt, Walter R. "The Interrelations Between Cultural Factors and the Acquisition of New Technical Skills."
- Watnick, Morris. "The Appeal of Communism to the Underdeveloped Peoples."
- Viner, Jacob. "America's Aims and the Progress of Underdeveloped Countries."
- Hayes, Samuel P., Jr. "Personality and Culture Problems of Point IV."
- Bekker, Konrad. "The Point IV Program of the United States."
- Bloch, H. S. "Economic Development and Public Finance."
- Hakim, George. "Technical Aid from the Viewpoint of the Aid-receiving Countries."
- Hirschman, Albert O. "Effects of Industrialization on the Markets of Industrial Countries."



# THE SUPPLY OF FOOD IN RELATION TO ECONOMIC DEVELOPMENT\*

The supply of food is always a lively topic as a rule unencumbered by theory or cramped by relevant statistics. While free from such dull restraints, it is often a victim of the fear that people will sooner or later "eat off their heads." Many have played the game of matching population growth and agricultural land with exciting results. Some of those who come to mind are Malthus and Ricardo, Crookes a century later, more recently Aldous Huxley and Sir John Orr and to mention two a bit more optimistic in assessing the odds, we have Sir John Russell and Robert M. Salter. But with all respect to these and others, I doubt that it can be said that there is at hand a satisfactory general explanation of the supply of food.

It will be my thesis that the fundamental differences in the underlying attributes of the supply of food between and among countries are primarily consequences of variations in economic development. The comparison which I shall make is between countries with a thin layer of capital, primitive in technology, skills mainly undeveloped and poor in income -- the so-called underdeveloped countries -- and those with a thick covering of capital, advanced technology, fairly skilled workers and a relatively high income -- the developed, Western countries. The observable differences in the supply of food between these two groups can be explained in terms of economic variables and the explanation is a meaningful representation of the effects of economic growth and development upon the supply of food. I am afraid, however, that this thesis will not allow me to strike an exciting chord, for it will be necessary to indulge in a few technical concepts, to be somewhat taxonomic, and a bit abstract in handling the variables and relations that emerge.

Many of you, I am sure, would like to have me examine the food supply in terms of additional crop land whether by irrigation, drainage, widening the temperature range, bringing in more of the undeveloped tropics, or by the application of more fertilizer and the use of better plants to increase yields, or in terms of still other improvements in farm practices that will increase the output of food. There are two good reasons for my not doing this: In the first place, clearly I am not competent to organize the technical knowledge and data that such an approach would entail, and, in the second place, each of these activities to increase the output of food is subject to a set of economic conditions, because irrigation, drainage and other means for enlarging the area of crop land require resources and so does fertilizer. New and better production techniques require research, extension and particular farming skills and each of these also entails costs in terms of resources. Moreover, a pre-condition of modern farming, characteristic of

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\*This paper was originally delivered by Professor Schultz at the XVIIth International Geographical Congress held in Washington, D.C., August 8-15, 1952. It will ultimately be published in the Proceedings of that Congress which are to be issued by the U. S. National Committee of the International Geographical Union.



Western countries, is industrialization. The food supply, accordingly, may be represented as a function of a set of economic conditions and it is to these that I shall now turn.

To organize the available data, I shall take two concepts and use them to gauge two important attributes of the supply of food, namely its elasticity and its growth possibilities. A word on each of the two concepts seems necessary. The elasticity of the supply represents the relation between output and price. We wish to gauge the elasticity in the short run because of its relevance in adjusting an economy to large, sudden changes in food requirements. We shall, therefore, take a period not to exceed three years and abstract from the production effects of improvements in techniques and in total factor supplies. The supply shift possibilities represent the relation between economic development and the position of the supply schedule where economic development moves the entire food supply schedule forward (to the right). We shall here take a somewhat longer time interval, say, a period of a decade.

### I. Food Supply Elasticities

The supply of food is slowly becoming more elastic as a consequence of economic development. This important structural change has gone virtually unnoticed, mainly because of the overemphasis on agricultural land in gauging existing food producing possibilities. As agriculture declines in relative importance, a new factor of safety emerges with regard to food because more resources than formerly can be transferred into agriculture from other lines of endeavor on fairly short notice and at the more advanced stages of economic development, enough to increase substantially the amount of food produced, assuming, of course, normal weather and for the moment leaving aside the additional favorable effects of new production techniques and growth in total factor supplies. Underdeveloped countries, unfortunately, do not have this particular flexibility in food output and the element of safety it provides.

Let me briefly consider the factors affecting this elasticity. If a country were suddenly hard pressed to increase its output of food, say because of war, the unavailability of imports, or for other reasons, how much more will it produce? Also, conversely, how much will the production of food be reduced if conditions were to take a sudden turn in the opposite direction? In gauging the relevant supply elasticities, I shall hold to a time interval of not to exceed three years, and for such a period neglect longer run developments, and to simplify further, I shall assume that the country is not suffering from a major depression associated with mass unemployment and that the sudden changes in circumstances give rise to a substantial movement in relative prices with farm food prices rising (falling), say, 25 per cent for purposes of the treatment that follows.

Under these conditions, the collection of resources available to the economy is virtually given and these resources are employed. To increase the output of food -- abstracting throughout from the effects of variations in weather -- it is necessary to transfer 1) within agriculture some resources from cotton, tobacco, jute and other non-food crops to food, or 2) some resources from the non-farm sectors to agriculture to produce



more food. I shall neglect the possibilities of transferring resources from non-food to food products within agriculture for two reasons: first, one observes that when sudden changes have occurred, in nearly all cases the demand and the price of the more important non-food products have risen about as much relatively as have the prices of farm foods, and second, the food group clearly predominates in most countries whether they are developed or underdeveloped.

In general, conditions favorable to a transfer of resources from non-farm sectors to farms to produce more food are 1) an economy in which agriculture is small relative to all production activities, and 2) an agriculture that employs a collection of resources of which a relatively large part is supplied by the non-farm sectors, and where many of the resources used in farming can readily be employed in non-farm production.

I shall compare India and the United States to illustrate the consequences of these conditions for the elasticity of the food supply. Less than 10 per cent of the resources of the United States are committed to agriculture; whereas in India, it would appear that upwards of 60 per cent of all resources are so employed. Furthermore, farmers in the United States draw heavily upon the non-farm sectors for inputs; about two-thirds of the gross farm income in the United States represents production expenses and a large part of these expenses represents inputs that are either purchased by farmers from other sectors or that can readily be employed in non-farm production. Although there are no comparable data for India, agriculture in that country is patently much more self-contained in the inputs that it employs.

The differences in supply elasticities of food that emerge are, I believe, of the following order: In countries where the economy is relatively developed, represented presently by the United States, this elasticity appears to fall between .3 and .4, when expansion of food output is called for, but lower, .2 or less, when the price of farm foods falls relatively and contraction is induced. This means that in the event farm food prices were to rise 25 per cent, say to a parity of 125, the output of farm food would increase as much as 10 per cent during an interval as short as three years, assuming, as already said, normal weather and abstracting from improvements in production techniques and growth in total factor supplies. A fall in price of the same magnitude, however, would induce a contraction of only about one-half this figure. On the other hand, in countries that are much less developed, represented currently by India, this particular elasticity under the conditions specified is exceedingly low; it may be virtually zero when one abstracts from new techniques and growth in total factor supplies. This means that a substantial rise in the price of food is not likely on short notice to bring about even a small increase in the production of food.

In addition, as an economy develops, the ratio of animal products in the diet increases and this change in the composition of the food supply represents still another important latent factor of safety. It would be possible, for example in the United States, to provide enough additional food to care for 50 and even 100 million more people on rather short notice, by simply reducing somewhat the ratio of animal products in the



food that is consumed. One observes, however, that a rise in the relative price of food of as much as 25 per cent will not by itself bring this latent factor into play. We know, nevertheless, that it exists and that it is one of the important differences in the underlying "elasticity" of the food supply of developed and underdeveloped countries.

There is yet another important closely related difference which arises from the income effects upon the demand for home produced food by farm families to which I wish to call attention. In the United States, home produced food has become an inferior good against income; this means that as farm incomes rise, for instance, as a consequence of the 25 per cent rise in farm food prices as already postulated, farm families will reduce their consumption of home produced food and increase their sales of food accordingly. In India, in sharp contrast, the cultivators' demand for food is such that much more would be consumed at home in the event their real income were to rise because this food is for them a superior good with a very high income elasticity, probably as high as unity (1.0). The supply curve of food, confronting the nonfarm people dependent upon these cultivators, is, therefore, a backward sloping curve, which means that as the price of this food rises, less rather than more is forthcoming from cultivators because they will, under such circumstances, increase their own meager consumption. A considerable part of the drastic food shortage in some non-farm communities in India in 1946 was the result of this particular income effect. (See Chapter XIV of my book, The Economic Organization of Agriculture, McGraw-Hill, 1952, for a treatment of this income effect.)

## II. Supply Shift Possibilities

I shall now examine the possibilities of increasing the supply of food over a period of years, specifically during a decade. As I have already indicated, nearly all treatments of the food supply neglect completely the elasticity attribute, which I have just considered. Moreover, in taking the longer view, these treatments have certain shortcomings in common. They place all too much importance on the function of agricultural land and on the very long run for which no one can foretell the effects of new production techniques, of new knowledge about nutrition and of the path that population growth will take.

Here, again, I shall point out the major differences between the two classes of countries, i.e., those with highly developed economies and those which are distinctly underdeveloped. I shall restrict my remarks to changes in fundamental factor supplies and production techniques and the effects of these upon the supply schedule of food. Although economic growth and development tend to make the supply more elastic, I shall say no more about that attribute in order to concentrate upon possibilities of shifting the entire schedule forward, that is, to the right.

A forward shift of the schedule means simply that production relations have so changed that more food will be produced



than formerly at the same relative price. (1) To illustrate, the United States produced about 75 per cent more food in 1950 than in 1910 at about the same relative price; this achievement may be represented as a shift of the farm food supply schedule far to the right, namely a forward shift of 75 per cent.

The basic underlying conditions affecting the possibilities of shifting this food schedule forward may be represented by the rate of increase 1) in total factor supplies, 2) in output per unit of input, and 3) the extent to which the additional factors and the new and better production techniques can be employed to produce more food.

The situation will be most unfavorable for achieving a forward shift of the supply schedule of food wherever the rate of growth in factor supplies is small; or the additional factors are specific to the non-farm sectors, and, therefore, can not be employed in agriculture; or few advances are made in technology; or these new production techniques are in no way applicable to farming. The converse of these conditions would represent the most favorable circumstances for a forward shift of the supply of food.

To compare the developed and underdeveloped countries with respect to these conditions, let me again take the United States and India. 1) The rate of growth of total factor supplies in the United States is fully twice that of India; furthermore, India is still hard pressed to accumulate enough additional capital to even maintain its present very low ratio of capital per worker, whereas this particular ratio in the United States is being increased appreciably and readily so. 2) Although the increases in fundamental factor supplies, including not only capital but also workers, that each will achieve, say, during the next decade, are not specific to either agriculture or to the non-farm sectors, it is not possible for India to use these additional factors to enlarge the capacity of her agriculture as effectively and to the same extent as can the United States. This particular difference arises not because such additional capital and labor cannot be used in India to increase the output of food but because the economy of India is much more dependent upon its agricultural land. In the United States, we find, as I have shown in a recent paper, that all of the land that is being used for agricultural purposes represents only about 20 per cent of all of the inputs employed in agriculture, and what is much more important, only about two and one-half per cent of all factors employed by the American economy. In India, in marked contrast, it appears that about a third or more of the inputs in agriculture consist of land and that agricultural land probably represents more than 25 per cent of all of the factors employed presently by the Indian economy. Agriculture land, accordingly, is fully ten times as large a share of total factor supplies in India as it is in the United States, and, therefore, to find the capital necessary to enlarge the productive capacity of this land, emphasis is on the importance of being unimportant, as agri-

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(1) This schedule may also shift under circumstances when the relative price of farm food has changed; in that event, however, it becomes necessary to separate out the resource "transfer" effects upon production from the effects of a shift in the supply schedule.



cultural land has become in the American economy. 3) In new production techniques, the advantages presently are very much on the side of the United States and the developed countries generally. The research required to "produce" these new techniques and the extension work needed to help farmers apply them is expensive, especially so for a poor country. 4) It is doubtful that technological advances which increase the ratio of output per unit of input are necessarily specific to either agriculture or to other production activities. Recent Western history indicates that they are about as applicable to one as to the other. Nor is there any reason for believing that the outcome will be substantially different in the underdeveloped countries as they undertake the slow and painful task of improving their production techniques.

The results of this comparison can be formulated in fairly firm quantitative terms. With normal weather and with growth in factor supplies and with advances in production techniques that are within reach and that probably will be realized, the supply schedule of food in India cannot be moved forward during the next decade as much as 20 per cent. The evidence, fragmentary as it is, indicates a forward shift of about 10 per cent under the conditions specified. For the United States, the equivalent figure is not 20 per cent but a forward shift of the farm food supply schedule of substantially more than this amount. The Bureau of Agricultural Economics-Land Grant College study, Agriculture's Capacity to Produce (2), just published, leaves little room for doubt on attainable possibilities. Even by 1955 with full employment and with cost-price relationships about as they now are (one of the important assumptions is a farm price parity of 105), an increase in total farm output of 20.6 per cent is attainable. Moreover, this additional output requires no increase in acreage of farm land or in man hours of farm work. Some improvements in production techniques and a further increase in fertilizer, machinery and in some other inputs that are purchased by farmers from other sectors of the economy account for the forward supply shift now in prospect.

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In closing, let me ask a question. Can the people living in underdeveloped countries free themselves from the niggardliness of Nature as have those in developed countries? There is room enough for both pessimists and optimists. The answer depends on what can be done in achieving economic development. But whether comparable development can be attained, even in the very long run, we do not know.

But this much we can say: The supply of food is a function of economic development. It becomes less and less dependent upon agricultural land, it becomes more elastic, and the possibilities of forward shifts of the food supply are improved importantly as a consequence of economic development.

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(2) United States Department of Agriculture, Agriculture's Capacity to Produce, Information Bull. 88, June, 1952.



## LABOR RELATIONS IN AN UNDERDEVELOPED ECONOMY\*

Grenada is a mountainous island, about 120 miles square with a population of about 70,000. The island was originally populated by Carib Indians who were liquidated by French settlers who first colonized the island in the middle of the 17th century. African slaves were imported shortly thereafter to cultivate the land, and their number increased greatly as cultivation was pushed back into the interior and up the hillsides. An enumeration in 1700 showed 250 whites, 50 freemen (colored and black), and 500 slaves. In 1827, shortly before Emancipation, there were 770 whites, 3,600 freemen (colored and black), and 24,000 slaves. The most recent census, taken in 1946, counted 630 whites (less than 1% of the population), 3,500 East Indians, descendants of indentured importees brought for estate labor after Emancipation, and 68,000 blacks and colored.

According to the French priest, Père Labat, who visited Grenada in 1700, the land was then in indigo and tobacco, although most of it must still have been virgin forest. These crops shortly gave way to sugar cane, even in this island of steep highlands, and, for over a century up to the middle years of the nineteenth century, sugar was king.

In the time of slavery, cane was grown on the estates of white planters; the land was concentrated in their hands and a trifling proportion of the land area was in freely held small holdings. Emancipation initiated a chain of circumstances which virtually drove out cane and revolutionized the crop pattern; fragmented the land and created a class of independent peasantry; and transferred estates from whites to persons of color.

Once freed, the former slaves took to the hills, squatted on the outer fringes of the estates, subsisted from provision crops they planted and from breadfruit put in years earlier to provide a low cost subsistence food for slaves, and refused to make themselves available for work for wages under a regime of work discipline. For a while, planters attempted to preserve the estates in cane by importing indentured Maltese, Portuguese from Madeira, free Africans, and East Indians. This proved unsuccessful and cane, as an important export crop, was finally given up when West Indian sugar lost its preferential treatment in the United Kingdom market.

The planters and the merchant creditors who took possession of estates for non-payment of debts then accommodated to the fall in the relative price of sugar, and to the unwillingness of ex-slaves and their offspring to accept wage work, by converting to a substitute crop and adopting a new employment relationship.

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\*This article grows out of research in the summer of 1952 under the sponsorship of the Institute of Social and Economic Research of the University College of the West Indies and with grant-in-aid support of the Social Science Research Council. I am grateful to both of these institutions for their assistance.



Plots of estate land were "contracted out" to be planted in cocoa trees (1) by ex-slaves who subsisted from provision crops they inter-planted with the cocoa to shade the young trees. At about the fifth year, when the trees were just beginning to bear, the land in cocoa was posted as collateral for loans made to the planters, usually by merchant firms which bought cocoa for exports. The proceeds of the loans were then used to make lump sum payments to the contractors at a previously fixed rate per tree. A large number of the contractors used these payments to acquire small plots of land on which they planted cocoa, provisions, and later, nutmeg trees. Since then, cocoa, nutmegs and mace (2) have dominated the Grenadian economy and peasant small holders have been very important in the structure of the community. The aggregate value of the three crops is always a very large part of the value of all exports. In 1951, total exports of \$6,100,000 (British West Indian currency) included \$3,600,000 of cocoa, \$1,400,000 of nutmegs, and \$750,000 of mace.

The "contract out" system created in Grenada, more than in any other West Indian island, an independent peasantry. There are said to be about 16,000 small holdings, ranging in size from a fraction of an acre to ten acres. Of 63,000 acres which appear on the colony's tax roll, 26,000 are in small holdings. Small holders produce one-third of the cocoa and two-thirds of the nutmegs.

The peasantry, cultivating tree crops that require less attention than annual crops, often on plots of miniscule size, (3) have time which they can devote either to leisure or to other employment, when work can be found to secure income supplements. Work for wages, in agriculture, is sometimes done for the more substantial peasants who plots are large enough to make it necessary to hire workers, especially at harvest time. More commonly, wage work is done for the estates which employ about 5,500 persons of both sexes.

The largest of these, in February 1950, (4) employed 105 workers; the smallest, three. The labor force of each estate is stable. It is not common for workers to leave one estate and apply for work to another, although transfers between estates sometimes occur. The ordinary pattern is for boys and girls to take wage employment in their early teens with the estate to which the parent with whom they live is attached, and to remain with this estate for their entire lives. On such an estate, the worker will move between occupations in accordance with his capacities for work defined by physique and age; lighter tasks are performed by children and the aged. There is no seasonal variation

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- (1) Cocoa is said to have been first introduced in Grenada in 1714 and was an export crop of some importance even during the heyday of cane.
  - (2) Mace and nutmegs are joint products, derived from the fruit of the nutmeg tree.
  - (3) The smallest producer of nutmegs in 1951 owned one tree, just in bearing.
  - (4) February falls within the more important of two cocoa harvest seasons in the year.



in numbers employed on estates, but there is variation in numbers of days worked per week in different seasons. At other than harvest time, planters offer only two or three days of work each week, thereby securing to themselves an adequate supply of labor for the harvest period.

There is a tradition of a single wage rate, differentiated by sex, throughout the agricultural sector of the economy, and this rate also sometimes sets the pattern for wages outside agriculture. In 1952, the rate was \$1.20 (BWI) per day for men and \$1.00 per day for women. When the quantity rather than the quality of the individual's work counts, work is done by the task; and the so-called daily rate is paid upon completion of the task, without regard to the length of time spent in fulfilling the task. Most tasks are completed in less than a full day. The community believes that the price of labor is equal in all occupations, because tasks are said to have been so defined that, taking account of skill and energy, the work required is equal in all occupations for which the uniform rate is paid.

In addition to wage receipts, estate workers are also given perquisites, which vary between estates, and usually take the form of rent-free or low-rent use of plots of estate land for growing provisions, or the distribution, free or at low prices, of breadfruit and provisions grown on the estates.

In this context, trade unionism first appeared in the middle 1940s. The early unions made some headway on the waterfront and among clerical workers in St. George's, the capital town, but agricultural workers were largely untouched by their influence.

In late 1949, E. M. Gairy, a young Negro who had been employed in a clerical capacity for several years in the oil refineries of the Dutch island of Aruba, returned to Grenada and inaugurated an organizing campaign for a Grenada Manual and Mental Workers Union. In early 1950 he led a work stoppage on the sugar estates in the southwestern section of the island. In the summer of the same year he made a demand upon the employers' society, largely an association of cocoa and nutmeg planters, for a 20 per cent increase in the daily and task wage rate. This demand was rejected and, in October 1950, the society signed a collective agreement with a rival union. Gairy then initiated a series of work stoppages on individual cocoa and nutmeg estates, starting late in January 1951 and culminating in an island-wide strike which was effective everywhere except in St. George's town. During the stoppage there were numerous instances of violence and intimidation, burning and other destruction of property, and looting of cocoa and nutmegs valued at about three-quarters of a million dollars. A state of emergency was declared. Gairy was taken into custody and removed to the island of Carriacou; British naval troops were landed; police were brought in from other West Indian colonies; and questions were asked in Parliament. After a month of stoppage, work was resumed in mid-March 1951, but only after the government had exerted pressure upon the planters to recognize Gairy's union and to negotiate with it. An agreement was signed on April 9, 1951 providing for an increase in wages, back pay, a conditional holiday week with pay, with stipulated machinery for the settlement of disputes within the terms of the agreement.

With this background, it is possible to formulate some judgments about the characteristics of labor relations in Grenada:



- I. Employers are a social class. Class values and class interests intervene in labor relations and complicate the relationships of workers and employers.

The stratifications of society into classes in Grenada is more rigid than in more developed economies and opportunities for mobility between classes more limited. There are few avenues for escape from lower-class status. Persons of lower-class status who pursue upward movement along these avenues quickly encounter checks, and several generations may be necessary for status changes to be effected. The children of agricultural laborers may, by dint of hard work and good fortune, become clerks and begin the process of escape, but in a small community they cannot conceal the status identity of their parents, and this is the major determinant of their own status. There is a well-ordered system of inter-class relationships which define proper conduct by and between people in terms of relative class status. Abusive conduct may be directed downwards from upper- to lower-class persons, but only respectful conduct may go upwards. Custom is a powerful influence, and change which redefines inter-class relationships is either not accepted at all or accepted in bad grace.

In this system, employers are "cultured" and workers are "primitive." (5) Employers have created a father image of themselves and believe that they know best what is good for the people; workers are children, irresponsible, indolent and prodigal, who prefer leisure and rum to worthy material goals. Therefore, a paternal relationship between workers and planters, in which the power of decision is a monopoly of the "better" classes, is the condition set for a stable society and well-being for the workers.

Class status is, in part, a function of race. When the planters were invariably white, they stood at the pinnacle of an ordered hierarchy. At that time very sharp color gradations were observed. A visitor to the island in the 1820s reported that distinctions were made, in terms of distance from a pure Negro strain, between samboes, mulattoes, quadroons, mustees, mustiphi-nis, and quintrooms, and social climbing was commonly accomplished by forming associations with others of lighter complexion than one's own.

Since then, after a long process of estate abandonment by whites and sexual union of the races, a great many of the landed properties have come into the hands of colored persons. They now play the planter class role. Skin color is not the exclusive determinant of status; such factors as schooling and income also affect a man's position in society. But it is roughly true that, in Grenada, the lower classes are black and the upper classes are colored.

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- (5) The persistence of African cultist practices in the country areas of Grenada is looked upon with distaste by the planter and merchant class, to be hidden from the knowledge of strangers to the island who might, otherwise, think Grenadians "uncivilized." The sound of drumbeating from the hills frequently brings requests to the police that the cultist ceremonies be suppressed.



In such a social structure, violence is done to planter class values if workers lay claim to equality in the bargaining process, if workers share in the making of economic decisions, and if their bargaining representatives are, like themselves, black and of lower-class origin.

As a result, employer-worker relations, in a collective bargaining framework, are charged with emotion. "Getting out production at low cost," which is the first principle of entrepreneurial conduct in the developed countries, here becomes submerged by the principle of preserving a customary social fabric. The violent, personal tones in which planters refer to the union leaders indicates that they are concerned with something a good deal more fundamental to them than wage demands. In these circumstances, it is very difficult to achieve the development of the spirit of compromise essential to collective bargaining in good faith.

- II. Worker grievances are not simple bread-and-butter grievances and the framework of collective bargaining has limits within which profoundly felt grievances are not adjustable. The union is really union-cum-political party.

Many grievances do grow out of the standard employer-worker relationship and can be settled by negotiation between the parties. But a reference, in open meeting, to a planter who is "playing white," or to reserving of office work for children of the better families, or that land planted in cocoa by the workers' forefathers really should belong to their descendants, will evoke more emotional response than a reference to the insufficiency of the daily wage rate. (6) These grievances against the racial ordering of the community, blocked opportunities, and unrequited aspirations for land, are not capable of adjustment by the ordinary processes of collective bargaining. To keep his power, the union leader must be, therefore, a political leader as well. His members do not distinguish between the facets of his dual role. Worker representatives and employer representatives meet at the bargaining table to discuss employment conditions and at the legislative councils to discuss public policy: failure to agree in one area saps good faith in the the other.

- III. The union's function comprehends the settlement of adjustable conflict outside the limits of the formal relations of employers and workers. The union, thus, simulates the judicial function of the State.

Members do not understand the role of the union to be specifically job-oriented. They believe that an organization which protects them anywhere protects them everywhere. Disputes which are not relevant to the employer-worker relationship, but which are adjustable, are brought to the union for settlement. This reflects in part the membership pattern of the union, which is comprised of workers exclusively employed for wages, others who

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(6) During the February-March 1951 general strike, a number of incidents occurred in which workers staked out claims to estate land and there were even informal adjudications of contested claims. While this has been described as play-acting, it is significant that workers on strike in the developed countries do not play-act in these terms.



are part-time wage workers and part-time "own account" workers, and still others who are exclusively engaged in "own account" work. The atomisation of landholdings and the wide distribution of rights in tenancy both create the conditions for the conflict of petty interests. In addition, a contentiousness among the people and the sensitiveness at offenses to "rights" has made these people litigious and has filled the dockets of the magistrates' courts for decades.

Disputes are enormously varied. The union's grievance book is filled with them. There are complaints about cows doing damage to gardens; unjust accusations of theft of coconuts; the cutting into land by road builders; the failure to compensate for damages suffered by collision with vehicles; attacks by dogs; and the like.

Union leaders accept these cases and urge that they be brought to the union, in order to hold the allegiance of the members by multiplying the dimensions of the services which it renders and thus institutionally entrenching itself in the community in many, rather than in the few ordinary, ways. The danger to the stability of the union lies in its having become a haven for the offended and distressed who, having been led to believe that the union has great power, expect solutions to problems which it is unable to provide.

There is a real question, of course, whether the union can operate on strictly job-oriented lines and still survive in a community in which disputes which have no relevance to job relationships are so important, and in which the difference between the wage worker and the self-employed petty peasant is a purely formal one.

IV. The union co-exists with its leader and survives only as long as the people pay allegiance to him. When the leader loses his influence with the members, the union becomes defunct. Power to formulate union policy lies in the hands of the leader; other officers play completely secondary roles. The allegiance of the members takes the form of veneration. The strategy of leadership is the strategy of repetitive drama.

Union members are loyal to the person of the leader, not to the union. The problem of retaining leadership is one of keeping the devotion of members alive. Solving this problem also solves the problem of institutional survival. There is no question here of being voted out of office. There is a book of rules, and a structure of offices, but this is mainly a facade. Rules are administered flexibly, or ignored when it is convenient to do so. The leader loses his office only when he ceases to be venerated; when this happens the organization disintegrates. Secondary officers are selected by the union leader: they are responsible to him alone. When they become disrespectful or exhibit some independence of judgment, they are summarily dismissed. There is no internal horse-trading with them, and no reliance upon the weight they carry with sectional parts of the union, because they carry no weight.

The people, however, are fickle. Theatrical devices, militant talk, large promises, occasional work stoppages and a show of power will win them over. But once the drama has worn off,



they show signs of turning away. To retain incumbency, therefore, the leader must always be able to keep emotion at a high pitch; or he must be able to sense when an atmosphere of drabness has set in and it is necessary to stoke the fires again.

The implications for labor relations are clear: 1) the survival of the union (and the leader) requires a strategy which includes occasional stoppages and the raising of "political," or other issues not relevant to the job that are charged with emotion; 2) "membership" in the union is defined not so much by the payment of dues as by the possession of an attitude of veneration towards the leader so that the democratic process in union affairs is not possible, except as the leader is willing to exercise heroic self-restraint. There are no effective internal checks on the authority of the leader, who is compelled, for these reasons, to appear to be uncompromising and often "unreasonable." Any procedure for adjusting grievances must be unstable in these circumstances and, where the strategy of survival requires it, agreed to procedures will be ignored. On the other hand, rival unionism has almost no meaning in this context and this leads in the direction of stability. Sometimes planters complain that they fear that they will be ground between the upper and nether stones of rival unions leapfrogging their demands over one another. (Sometimes this is expressed hopefully: "someone will come along and promise the people eight shillings and they will desert Gairy.") But this assumes that the influence of the leader with the people is a function of the wage demands he makes upon employers and their wage-related aspirations, and this interpretation, as can be seen, is gross oversimplification.

- V. The union leader's performance of services for members is mixed with the pursuit of his own personal advantage. One form of such personal advantage is enhanced social status.

The forms in which the union leader's personal interest is served by his professional activity are various. Union leadership provides opportunities for financial gain. Gairy is paid a salary by the union and he operates a number of private business ventures which sell services to the union. Leadership also opens the door to loans from planter-merchants with whom the union has dealings.

In addition, Gairy employs his office to enforce a status level for himself in the community higher than he would otherwise hold. Protocol, and the desire for respectful regard, are powerful values in Grenada. These values are operative at all social levels, and everywhere there is the avoidance of conduct which is fitting only for persons of a lower station. Thus, men will not do types of work "fit" only for small boys or women; young men living alone will not carry their lunch into the fields lest it be thought that they had prepared their own food; clerical workers will insist upon being addressed as "mister." These values affect Gairy, too. He frequently insists on forms of treatment commensurate with his leadership role in the community and his membership in the colony's legislature.

Planters feel, however, that his status is lower than their own and, in the subtle ways of social intercourse, they make this belief known to him. His response is to insist upon all the formal respect that custom has defined for members of the legislature



although the custom arose at a time when members of the legislature were invariably of upper-class origin. He responds also by acting in bad faith to the planters, and rubbing salt in their wounds by calling stoppages which may be essential neither to the strategy of gains nor to the strategy of his own survival, and by attacking them roundly in public meetings.

- VI. Planters act jointly in labor relations. Variant practices by individual planters that depart from planter community norms are greatly resented. The sanctions for conformity are more powerful than in the developed economies.

Planters negotiate with the union through an employer association. The formal decisions by the association are supplemented by joint decision-taking in informal meetings. Uniform wage standards among estates, arrived at by joint decision rather than wage leadership, have prevailed for a long time and have undoubtedly depressed mobility of workers and led to the tradition of stable attachment of the labor force to particular estates. Deviations from standard practice cannot be concealed because the community is small and secrets are not easily kept.

Deviants run the risk of social ostracism. A planter who is "cut off" in Grenada has nowhere else to go; there is no other community where he can seek social intercourse, consistent with his values of what constitutes proper associations, and these values are more carefully defined and more strictly enforced than in the developed countries. A planter who suggests that a current employment standard be modified will ask that other planters not be told the source of the suggestion. Efforts by the union to break the united front of the planters by finding weak links in the chain and signing separate agreements with individual estates, thus possibly establishing a pattern of wage leadership, have met with failure in the face of the great power of the institutions which enforce joint action.

Within the planter community a division has developed between an intransigent bloc ("we cannot deal with people who preach arson and murder") and a compromising block ("we have to recognize that unionism is here to stay"). The former approaches the problem of planter-worker relations with great and absolute principles; the latter approaches it pragmatically and is motivated by the maximizing objectives of the Western entrepreneur. Planter policy in labor relations is now being forged out of the clash of these positions.

- VII. The role of government in dispute settlement is important. Intervention of government is complicated by the ambivalence of the government officer whose allegiance is divided between a desire for neutrality, personal identity with the planter class, and responsibility to the public policy of the metropolitan government.

The attitudes of the parties to labor disputes are so colored by considerations of social status that third party conciliation operates under extraordinarily difficult conditions. Arbitration of disputes by government and legal wage-setting, however, are much more easily accomplished. Many planters express preference for wage determination by public agencies, partly



because they are convinced that public processes will yield solutions more acceptable to them than collective bargaining, and also because these processes conceal the presumptive equal status which collective bargaining shows up sharply. Union policy admits government action as a supplement to collective bargaining to enforce standards, determined by bargaining which the union cannot enforce in those areas in which it is weak and to reinforce these standards in the areas in which it is strong.

At one time, positions in the public service were monopolized by the children of white planters and merchants, and it was very difficult for people of color to break into them. These positions were highly prized by colored persons. The government job became an avenue of escape from the lower classes. When the colored were accepted in the public services, they assimilated the class attitudes of their predecessors. These attitudes still prevail, although the complexion of the public servant is becoming progressively darker and his class origin progressively lower. The union is essentially an organization of country people who are the most underprivileged in Grenadian society. To most government workers, these people are "trash," "ignorant," and "illiterate," and their response to a union which raises the relative power position of the agricultural laborer and, therefore, depresses their own relative power position, is antipathetic.

The topmost positions in the public service are occupied by Englishmen who represent the Crown. The social associations in which it is considered proper for them to be engaged are very limited. "Too free" mixing with the people by a government administrator is looked down upon, in the rare cases in which an administrator's inclinations lead him in this direction. The government officer, therefore, must keep a substantially greater social distance from union leaders than he keeps from planters. If he does not, planters will resort to concerted social snubbing. In a small, tightly knit community, where the discipline of class is strong, this can be very distressing.

There are other sanctions which the planter can bring to bear upon the public administrator. Top level posts in the public service are usually occupied by career officers of the colonial service, whose progress is determined by their loyalty to the Crown and their devotion to the policy of the Colonial Office. "Quiet" administration of their offices is one measure of success. The planters, however, have friends in Parliament. If they find the conduct of governors obnoxious, questions begin to be asked in Parliament, and the Colonial Office is disturbed from the routine performance of its functions. Governors, thus, have an incentive to behave in ways which planters do not find objectionable.

Objectionable conduct, in terms of planter attitudes, however, sometimes is made necessary precisely by the requirements of metropolitan public policy. A cabinet operates in full view of public opinion. Once the right of workers to organize and to freely select their representatives for collective bargaining is accepted by this opinion, cabinets must be prepared to enforce it in the colonies. Governors who execute this policy faithfully run the risk of questions in Parliament. The union, of course, also possesses pressure resources which come out of the career officer's desire for a quiet life. It also has friends in Parliament who may ask questions.



Government policy in labor relations is further complicated by the fact that government, itself, is one of the largest employers of labor in the island and that the wage rate in agriculture is traditionally the wage rate for the day-workers (mainly in road building and maintenance) that government employs. Consideration for the public revenues and the level of public expenditures thus become components of decisions taken by public agencies intervening in labor disputes.

Government policy is also made difficult because labor relations in the private sector are affected by decisions taken in the public sector. A strike on a government cocoa rehabilitation farm, on which young cocoa plants must be watered to be kept alive, poses a dilemma. If government calls in strikebreakers to water the plants, it is forestalled from urging planters to eschew this tactic. If planters refuse to negotiate and do call in strikebreakers, violence may break out. The policy of economic rehabilitation thus comes into conflict with the policies of preserving the public peace and representative negotiation.

It has already been mentioned that, in Grenada, the union leader is also a political leader. In this capacity he comes into conflict with government officers over public policy and the details of administration. The estrangement of the two over these questions flows over into labor relations, affects the conduct of government and reduces its effectiveness in intervention in labor disputes.

VIII. The desire of the people for freedom from work discipline leads to a system of payment by results and this, in turn, leads to a continuously open wage clause in collective agreements. The dependence on export crops sold in competitive markets, and the degrees of elasticity of product demand and factor supply define the scope of collective bargaining.

With some exceptions the daily earnings of workers are identical, differentiation being made only between men and women, between adults and children, and between the able-bodied and the non-able-bodied. Able-bodied males, in all occupations, are paid \$1.20 (BWI) per day. The number of hours of daily work for which this rate is paid do, however, vary with occupations. If a worker is employed in a daily-rate occupation, such as fence repairing, road maintenance, or boucan (barn) work, he will be paid the standard rate for eight or seven hours of work, depending upon the practice of his estate. If, however, he is employed in a task-rate occupation, such as picking cocoa, cutlassing pasture, digging pen manure, planting provisions, or cleaning drains, he will be assigned a task whose size is fixed by custom and he will be paid the standard rate, regardless of the time any particular worker requires to complete the task.

The task system of wage payment came into existence to expand the supply of labor by bringing men into the fields who would be willing to accept short-day work to supplement the income they could derive from peasant plots, but who would not accept full-day work. As the population expanded, a sufficient supply of labor became available for full-day work, but by then task work had become fixed by tradition and the practice persisted beyond the life of the rationale.



The fixing of daily earnings in the collective agreement does not, in this system, fix the wage rate, since the definition of the task is always subject to negotiation. While planters seek to achieve task uniformity among estates, this is very difficult because task size is related to the conditions under which work is done and will vary even within a single estate.

Grenada produces only a fraction of one per cent of the world's cocoa and one-third of its nutmegs. Cocoa is sold in a competitive market in which price is given and there is no opportunity for administered prices. In nutmegs, there is some possibility for Grenada to act like an oligopolist. In the short run, it may affect the price by a judicious control of stocks and releases from stocks, because a large proportion of the supply is produced in the island, the supply of nutmegs is inelastic (as a tree crop, several years must elapse after planting before a crop is brought in) and because the demand for nutmegs is inelastic (the cost of nutmegs is a small part of the total cost of the products in the production of which it is a joint factor). But a long run policy of restriction of output in Grenada to force prices up will surely induce the Banda islanders in Indonesia, who are the other main producers, to extend their planting and may well cause commercial consumers to turn to synthetic oils as a substitute for nutmegs. Since there are good substitutes for Grenadian nutmegs and for Grenadian cocoa, the demand for them is elastic in the long run and this diminishes the power of labor to bargain up its price. The cost of labor is a large part of the total cost of producing nutmegs and cocoa. The techniques of production are almost entirely characterized by hand processes, in tilling the soil, planting, tending the land, harvesting, curing, sorting and grading, packing and transport. There are only very small capital inputs. The cost of labor, therefore, affects materially the cost of the product and this also diminishes the power of labor to increase its price.

On the other hand, in the conditions of the topography and the land tenure pattern of Grenada, there is no good substitute for labor. Agricultural machinery does not yet seem to have been designed for tree crops on small farms in hilly country. In addition, the supply of land, the main other factor with which labor is combined in production, is inelastic. Land does not easily move to other uses when the prices of cocoa and nutmegs fall. The historic practice of the planters in periods of disaster prices indicates that this is true; the fields are permitted to "go to bush," unattended, with undergrowth left uncut-lashed and aging trees are not replaced; but there is almost no cutting out of trees and planting of alternative crops. The relative inelasticity of substitution of labor and the relative inelasticity of supply of factors which cooperate with labor augment the power of labor to increase its price. Thus, the economic forces which define the strategic positions and capacities of the parties in labor relations in Grenada move in opposite directions.

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# TECHNOLOGICAL CHANGE IN OVERDEVELOPED RURAL AREAS\*

When, in America, we think of "rural areas" in remote parts of the world we are inclined to imagine rugged, crude, partly developed spaces -- in the official phrase, "underdeveloped areas". It is usual, too, to think of technology as something that can be added to a rural area to develop it. I want to suggest that we will come closer to understanding the real problems of technological change in most of the world if we reverse the emphasis. From the point of view of the people in them, many rural areas are not so much underdeveloped as they are overdeveloped.

The problems of technological change in an overdeveloped area are not the same as our familiar additive problems. Rarely does technological change merely add new things; more often, it alters the pattern and the structure of people's lives. It does not just add, but creates a new structure or pattern, and often destroys an old structure or pattern. In this fact lie some of the most serious practical problems of technical change. Some problems of technical change are involved in finding the appropriate new technique, others may be involved in teaching and explaining the technique once it has been found, but major problems always await us in the overdeveloped context into which the new technique is introduced.

What I mean by technological "overdevelopment" is the pressing of techniques up to and beyond the point of an optimum relation between man and environment. In an overdeveloped area, too many techniques are too exhaustively applied by too many people to too little land.

This phenomenon of overdevelopment affects the spread of new techniques in several ways:

(1) Development in an overdeveloped area is an old story. Much development has occurred in the past, often too much development. Techniques have reached what seems to be a static equilibrium. A new technique has little room in which to spread.

(2) Overdevelopment means that techniques have come to be tightly interconnected with each other: introduction of another new technique may disrupt or require readjustment of many old techniques.

(3) Technology in an old, overdeveloped area is likely to have become interconnected with many patterns of personal and social behavior--groupings, ideas, beliefs. Introduction of a new technique may be followed by acceptance or rejection according to criteria which are not directly technical at all, but social and cultural.

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\*This paper is based on observations made during social anthropological field work in northern India, October, 1950 to May, 1952. Field work was supported by an Area Research Training Fellowship of the Social Science Research Council.



(4) Finally, overdeveloped areas have technological problems and their people know that they have them. Technological change itself is likely to have become an institution with a regular social organization, national or even international. The spread of new techniques will therefore be affected not only by the local situation, but also by the culture, society and politics of the people who introduce the new techniques. Those who introduce changes may have to deal personally with all of these four effects of technological overdevelopment.

I will discuss these four problems of technological change as they appear in one overdeveloped rural area of India. Problems in other places will not be identical, but Indian overdevelopment demonstrates, in extreme form, the kinds of problems which are likely to attend the introduction of technical changes anywhere.

The observations which follow were made in remote villages of the Ganges plain about 100 miles from the capital at New Delhi. The immediate area had undergone no industrial development and there were no obvious signs of any program for technological change. Rural population numbered 600 per square mile, the people being jammed into tight little villages. Wheat, barley and peas supplied most of subsistence by means of what appeared to be very primitive techniques. The area was so conservative, and my presence so frightening, that I was politely thrown out of three villages before I was finally allowed to settle in a fourth.

#### A Long History of Technological Development

Although this area had seemed at first to be very backward and unchanging, I was struck soon afterwards with evidence of a great amount of recent development. Indeed, the very existence of a population problem implied that there had been extensive recent technological expansion and change.

I was impressed very early by evidence of American influences -- influences much older than those of Point IV. Farmers in my village were cultivating potatoes, corn, tomatoes and a strain of improved cotton, all of them imported from America. I was surprised, too, to find many other crops in the village which I knew were not native to the Ganges valley. Carrots, originally from Central Asia, were being eaten in huge quantities by men and beasts instead of the native turnip. Mustard oil-seed plants were almost crowding wheat and barley out of the grain fields; villagers told me that there had been none two generations ago. Sugar cane of an improved variety was being cultivated in my village as a valuable small cash crop, while it had become the only crop in other villages beside the canal a few miles away.

I noted also that there were certain new mechanical inventions being used in this seemingly static agricultural village. A home-made seed drill was being used for sowing wheat in place of the broadcasting by hand which had been traditional. Big, hand-cranked, rotary iron chaff-cutters were cutting half of the fodder eaten by village animals. A gasoline-powered flour mill was grinding one-third of the village grain and beginning to replace the stone querns formerly used in every house. There were



also a few modern jim-cracks: flashlights, kerosene lanterns, a phonograph, a Japanese banjo, a harmonium, European-style shoes and shirt-tails.

There was all of this evidence of technological change both in crops and in machines, but it stood out against a background of poverty, malnutrition, poor health and extreme inefficiency in most of the essential agricultural activities. Plowing, for example, was done with great labor using frail wooden plows. Irrigation required drawing up one bucket at a time: a week's labor, by three men and two oxen, was needed to irrigate a single acre of wheat. Sickles, the size of a man's hand, were used for harvesting all the grain which was threshed under the slow treading of the hooves of oxen.

The changes which had occurred had not penetrated very deeply, but had gone far enough to double the population of the village in the past century. There is not now a spare square foot of land to be found. In the present generation, pastures and forest plots have all been cleared and sown with grain. While I was in the village, the last bits of interstitial land -- roadways, cremation grounds, shade trees, gravel pits and the like -- were leased out for cultivation. This was clearly desperation. Agricultural development had now gone so far that every new organic element is completely extracted from the soil once, twice, or many times each year. Almost every plant is fully used. Grass and weeds are carefully dug up, roots and all, to be used as animal fodder. Leaves are stripped off the trees repeatedly. The entire land lies absolutely bare and brown for three months of each year; the air, too, is brown, for it is full of the precious soil, dried and blown about as dust. I learned that one family of every ten had been compelled to leave the village in this generation in search of food. Many economists have represented this generation as one of relative "agricultural prosperity"!

Despite obvious crisis, there is great hope to be derived from knowledge of the history of technological development. Without anyone growing crops recommended by government, without anyone having seen movies or slides or listened to radio propaganda for higher food production, many changes and much expansion of food supply have actually come about. Through the centuries, quietly and without urging, the peasant has made many changes on his own. And the changes have stuck. Sticking is surely one criterion of effective technological change.

#### Interconnections of Techniques

There is great hope in this picture of past development, and yet there is also great difficulty in adding anything more to the total complex of technological equipment used by such a people. To make room for anything new, one would first have to uproot something old. To improve on something old, one would have at least to destroy the older form. Even improvement requires a minimum of experimentation, but the technology of an overdeveloped area allows very little free room for experimentation. An overdeveloped village has room only to subsist, not to try and certainly not to err: the margin is too small.

What is more, each part of an overdeveloped technology is likely to have come to have positive connections with many other



vital parts of the technology. If one incautiously adds some new element, not just one old part, but perhaps twenty connected parts of the old technology will be affected, sometimes for the worse as much as for the better.

New items and new techniques may succeed if they prove viable in the total context of interconnections. I have already noted several instances of successful additions to the village repertory of crops. Potatoes and carrots, for example, replaced cotton and turnips. As human food, both potatoes and carrots proved to be popular substitutes for turnips, and were in time favored far beyond them. Carrots found favor among the livestock and have become an important fodder crop. Potatoes can be preserved easily and can be sold for cash, making it possible for the peasant to buy much of the cotton which formerly occupied his potato fields. What had seemed to be mere additions to the technology were thus in fact replacements. Most additions of new crops must become replacements, for resources of land, labor and water in an overdeveloped area are strictly limited.

Another more complex instance of successful replacement, this in the very recent past, is the replacement of an old native variety of sugar cane by an improved new variety. The new variety, which yields much more sugar to the acre, is thin-stalked and very tough. It is so tough, in fact, that it cannot be properly crushed by the old wooden presses which were formerly used. Its successful replacement of the old cane depended upon the introduction of a new heavy iron cane crusher. Fortunately, iron crushers were introduced at the same time as the improved cane. The improved cane brought part of its context along with itself. Sugar yields were increased materially, enough to pay the increased cost of renting the iron crushers, and enough to provide slightly higher profits than before.

Carrots, potatoes and improved sugar cane were successful because they fit into all of the old contexts of the items which they replaced, or where they did not fit, they provided good, realizable, economical alternatives. Because they successfully met the criterion of total adaptation to the context of an overdeveloped technology, these successes were achieved without the intervention of any government officials, without consulting high-priced experts, without the necessity of anyone's traveling half way around the world.

These successes point the way to further successful change, but in themselves they do not begin to touch some of the most desperate technological needs of the village. Despite the ready presence of what seem to be obviously better techniques, despite explicit study, despite energetic government propaganda, the desperate problem of making further increases in food production remains unsolved. To get more food, three necessary technical changes have been stressed above all others: more manure, better seed and more water for irrigation. Technicians hold that food production in India could be increased as much as 100 per cent if all three of these technical changes were made. But the peasants of my overdeveloped village, like the people of most Hindu villages, have not seen the light. Let us see why they must look upon the proposed improvements so darkly.

Manure, for instance. Farmers are urged to put more of it on their fields. The peasant farmer in my village knows the value of manure very well, all popular writing to the contrary notwithstanding. And here let me incidentally indicate the prob-



lem of obtaining reliable information about peasant life. There is a common belief among foreigners that the Chinese like the Europeans appreciate the value of manure and particularly of human night soil, while the Hindus, for some religious reasons, do not. Nothing could be further from the truth. Most of my farmers took special pains to defecate in their own fields, walking as far as a mile to do so. I was many times cordially requested by one or another Hindu farmer to please perform my natural functions in his field, so as to enrich it. The manure of the bovine is treasured and is actually worshipped. Twice a year each farmer pays to have his household trash and his surplus animal dung carried to his distant fields. Knowledge of and belief in the value of manure are clearly present; no educational campaign is needed.

But remember that the elements of an overdeveloped technology are likely to be interconnected. Manure in this village is connected as one of a set of alternatives with many other possible uses of animal dung. Manure competes therefore with cooking, especially with the cooking of clarified butter (which requires slow-burning dung as fuel); it also competes with plastering a house (which requires a plaster made of dung), and even with smoking the hubble-bubble (which requires a sweet dung fire in the bowl of the pipe). The supply of manure has a direct connection with population and with the pressure of population on land. Because of pressure on the land for food, forest land and scrub jungle were cleared and turned into cultivated fields. Thirty years ago, those same lands had furnished free and ample fuel wood for cooking most of the family meals on the village hearths. Now that the wood supply has been cut away other sources of fuel must be found. Only dried leaves and the stalks of certain crops are left. And dung. More and more dung has had to be expended to fill the gap in cooking needs left by the loss of wood as fuel. Less than half of the dung remains to be used as manure for the fields which need it more desperately with each passing year.

One reformer, about a generation ago, knew that the manure problem was connected with cooking needs. He tried to solve the problem by inventing a kind of insulated thermos box that would keep milk hot for an hour or two after it had been brought to a boil on a quick fire of crop refuse. That should have permitted housewives to manufacture clarified butter without burning precious dung cakes. The reformer worked hard to get some boxes made in a city and then showed many village housewives how to use the box. But village carpenters did not know how to make the box, and so the idea did not spread. When the first boxes broke they were not repaired, and housewives went back to burning dung cakes. The change failed because the technological problem was not solved in its full context.

Better seed is a second main road to greater food production. Why have so few hungry villagers travelled that road? The native wheat seed, used universally in my village, produces only half the yield that the available improved seed will produce, given good conditions. The improved varieties are hardy ones, carefully selected and tested over many years. They are "available" in the sense of being present in nearby government seed stores. Peasants know about the stores and know about the seed. Why then do they not rush to get and use the improved varieties? The replacement of an old, inefficient seed by an improved seed of the same plant would seem to be the simplest kind



of technological change, a change so simple that one might easily ignore the complexities of the total context. How could there be elaborate technical repercussions from so simple a change? But we are discussing an intensely overdeveloped technology in which there is no waste, in which most organic elements are exploited to the last calorie. In such a tightly-knit technology there can be no change, not even the smallest, which does not have repercussions.

Let me list some of the objections which farmers in my village, and in other nearby villages, have raised against the improved wheat seed. It is true, they said, that if the Lord pleases, one will get a better weight of fat wheat from the field sown with Government's improved seed: the yield in weight is really very good. One or two farmers had tried it. However, they had no intention of doing so again. The operator of the seed store was an impossible man. He gave the seed at a low enough rate of interest, but he demanded that it be paid back on a certain date, which might not be at all convenient if one had other debts to pay after the harvest. What was most unreasonable, the seed store operator demanded that the seed should be grown and returned pure, not mixed with the barley, peas, grams and oil seeds that guaranteed against complete crop failure in a bad wheat season. Aside from these impossible conditions governing the loan and use of the seed, look at the resulting crop! The grains are indeed big -- so big and tough that the women can not grind them well in the old stone flour mills. Dough made from the new flour is difficult to knead and hard to bake into good bread. The new bread, which is all a poor farmer has to eat, does not taste like the good old bread: it is flat and uninteresting (the explanation being in part, of course, that it does not contain that potpourri of barley, peas, grams and mustard seeds that "wheat" contained in the old days). Next, look at the cows and bullocks! They do not like to eat the straw of the new wheat; they will die of hunger if we grow it. The straw is worthless, too, for thatching roofs. It does not even make a good fire.

An improved wheat seed thus does not appear to the Hindu farmer as a simple addition, or a simple replacement or improvement on one item of his technology. The new seed brings along with it a whole new plant; the many parts of the plant and their many uses lead to an unknown series of threatening consequences. When techniques are so tightly interconnected we must admit the wisdom of the Hindu farmer's conservatism. He rightly feels that even small alterations in his precarious, overdeveloped technology may lead to a catastrophe. Somehow, the peasants' legitimate technical fears must be answered by the innovator. Only by taking the larger technological context into account can the introducer of new techniques claim that he is acting responsibly. Only when he does so is he likely to be operating effectively -- introducing changes that will not raise more problems than they solve, changes that will stick.

#### Social and Cultural Connections of Techniques

Considering how to get more water to irrigate the crops -- the third main road to greater food production -- brings us to another kind of observation about overdeveloped technologies: that the elements of technology tend to be tightly connected not only with one another, but also with other aspects of rural life



which are not technological at all. Thus the sacred cow can not be manipulated without regard for her position in Hindu belief. Thus, too, techniques of agriculture, since they occupy so much time in the total lives of Hindu peasants, have a direct and important effect on social groupings. People's developed attitudes toward each other and people's developed beliefs may be so deeply involved in technological matters that possible advantages of a new technique may be outweighed by the threat of personal and social disruption.

I shall cite only one example of this principle from the field of irrigation. Reformers of Indian agriculture, both private and governmental, have long attempted to stimulate wider use of a mechanical irrigation device known as the Persian Wheel. The PW is a device for raising water from a dug well by means of an endless belt of pots on a rope, or more recently, steel buckets on a chain. Its gears are operated by a camel or an ox. It can raise about five times as much water in twenty-four hours as can an ordinary well which is operated by drawing up one leather bucketful of water at a time. The PW is common through most of Punjab, but its distribution stops rather suddenly about forty miles north of my village. A large number of PWs which had been installed a few miles to the west twenty years ago by an agricultural reformer now lie unused and broken. Why does use of the PW stop where it does? Why is it not used in every place where the water level in the wells is sufficiently close to the surface of the ground? There are, of course, real technical problems of construction, finance and provision of facilities for repair of the PWs. More than that, there are serious problems of social organization, law and supernatural belief. The PW is such a valuable and expensive investment and has such power to affect a large plot of land that it requires cooperation among several peasant families to make its use profitable. The cooperating families who have adjacent fields must agree on terms of investment, and later on terms for the use of the water, for the sharing of repair costs, etc. In those parts of Punjab where the PW is most at home, the system of land tenure has had to be reshaped, making the wells, rather than the block of fields, the unit of tax assessment. A new type of ownership of fractional shares in water rights along with rules for buying and selling, borrowing and renting water have had to be worked out so that all of the scattered fields of a water-owner will be irrigated. Over and beyond these legal problems of controlling the well that has a PW, there arise special social problems within the working group of people who will operate it. To bring real profit on the investment, PWs in many places have to be worked twenty-four hours a day. Someone has to sit up all night prodding the ox or camel around the towpath. And many Hindu villagers believe that the dark fields are populated by thieves, ancestral ghosts and dangerous animals. To offset such fears, to provide for taking turns on the PW and to organize some control over use of the precious water, it has been necessary for farmers in West Punjab to split up their houses and build them right beside their wells. This splitting-up of houses conflicts sharply with the scheme of village organization which is usual near my village in the upper Ganges plain. There all houses are crowded into the smallest possible space at one point in the center of the village's fields. My villagers looked to their old, fortress-like plan as offering them maximum security in a threatening world. The old laws of house-building, too, have until recently discouraged the drastic rearrangement of dwellings that the PW would demand. If the PW were to be introduced effectively, provision would have to be made for solving



the problems of law, social structure and belief that are directly involved.

Such involvement of non-technical elements in the technology of an overdeveloped area may be stated as a general truth. Sometimes, problems of social organization may retard the adoption of a technical change, sometimes they may speed it, and occasionally they may be approximately neutral. But they are always likely to be involved. They demand to be considered before a large effort at introducing any specific technical change is launched.

Thus far I have suggested that (1) much recent technological change can occur and has occurred in the overdeveloped areas of the world that now appear to be static; (2) any one technical item tends to be connected with many other parts of the total technology; and (3) technical matters may have very important connections with wholly non-technical matters of social organization and the like.

#### Technological Change as a Political Institution

We move now to the fourth point, that in the overdeveloped areas, technological development itself has already become something of an institution. Villagers and government people both have rather definite ideas about technological change in general and about specific new items of technology in particular. Development in such a nation as India has become a very well-developed institution: definite people are concerned with the business of development and villagers are coming to have definite expectations about such developers. The question of development has become very largely a question of power and status.

When I sought out my remote village in 1951 and when I casually settled there, I had not heard anything of Point IV. I was astonished at what my villagers told me. I simply said that I was a student from America who had come to learn how they lived. They were not only convinced that something like Point IV was sure to happen, but seeing me in a Jeep were further convinced that I was, personally, the first wave of the American Empire. Just as the British had begun their conquest of India by seizing the island of Bombay two hundred years ago, so I had begun my conquest with their village, they told me in all seriousness. The Government of India had called me to solve the problems of change that the Government could not solve by itself; or, conversely, Pandit Nehru had taken a big loan of grain from America, and I was here, in the conventional manner of village grain-lenders, to make a credit-rating of the debtor, perhaps to seize all grain from the coming harvest as repayment. Many villagers predicted what would happen next. Two hundred -- three hundred -- five hundred Americans were already on the way or were in Delhi even now. I would take over the village houses, buy or seize (by virtue of my secret weapons) the best, or all of the village lands. I would then carry on all agricultural work of the village by machines, harvesting the crops and disposing of the grain. Families would cease to exist: everyone would now have to eat at a great cafeteria and sleep only in hotels, as they do in America. My villagers thought that they might have more food to eat, but just what would the food be? Would it be those strange loaves of English bread? Would they be forced to eat the forbidden beef? All the children would, of



course, be taken from their parents and raised apart in schools as in America -- this they knew. Would I pay their wages, and how much? Incidentally, I would handle all law suits, dispense criminal justice, abolish all the old Hindu rites and ceremonies, and deliver moral lectures from time to time, for I was -- and this phrase summed up matters pretty well for many villagers -- I was their Mother and Father.

Most persistently through the following months, villagers whispered among themselves that I was about to introduce a revolution in agriculture by means of machines. For instance, they hoped to have the secret device which had made American farmers so wealthy -- four times the amount of surface land, to be achieved by digging a basement under the fields and by erecting two or three stories of artificial fields, supported on poles above the present ones. That is how Americans get such remarkable yields per acre! On a more credible and practical level, villagers often begged me for seeds of strange American plants and for the most minute descriptions of how the technology of agriculture, and of all the other necessary works of life, were carried on in America. For them, these were tales of wonder and delight that had to be repeated hundreds of times. Such a response to the mere presence of one official-looking person might be understood in part as an expression of courtesy and respect. From their reactions, one might also easily conclude that villagers in the old, overdeveloped village of India are psychologically prepared for technological change on a grand scale, that they are ready for Point IV.

Some are prepared for change in the sense that they have fantastic hopes and wild expectations. Others are prepared in the sense that they are afraid and hostile, in the sense that they feel they are being attacked. Many are prepared in the sense that they know enough of the outside world to realize that their own technology might be changed for the better. But most see change as something that is to be handed them from above, as indeed, it so often has in the past. Villagers in this overdeveloped area know that their technology is precarious and are therefore conservative; confronted with the enormous consequences of technological change, they can only throw themselves upon the paternalistic mercy of the innovator, making him totally responsible for the possible effects of his great power on them. These are the kinds of attitudes that may shape the innovator's role in villagers' eyes. For the introducer of change who is hoping that there will be some modest efforts on the part of the peasants, such attitudes and such a role present both difficult obstacles and interesting opportunities.

Without discussing some of the possible ways of handling such attitudes toward change, I do want to point out that these are attitudes of dependency -- attitudes which are justly famous in India as *Mā-bāp-ism*, the "motherandfather" attitude. This *ma-bap* dependency is a source of continual distress to Indian workers on projects of technological change. Gandhiji's philosophy of technological change by active self-help is a direct answer to the passive fantasies of *ma-bap* attitudes. Gandhi knew and his followers today know that *motherandfatherism* not only reduces people to a rather undignified condition of apathy, but prevents effective mobilization of energies to put new techniques across, in a practical sense. Gandhi's program of change through self-help is one on which tens of thousands of social workers are operating in India today. Their aim is to develop



agriculture not on a great industrialized scale, but rather on a scale that will be within the technological competence, knowledge and control of ordinary, poor, illiterate farmers. Since the country is poor in industrial resources, really effective change in techniques must be those which are desired, understood and willingly carried out by the masses of peasants without elaborate superior direction. In this connection, they have talked a good deal about "cottage industries," and worked to get them started.

Now whether or not one believes that the Gandhian program can solve all of the technological problems of raising production in overdeveloped areas, it is important to realize that peasant feelings may be strongly in sympathy with certain parts of Gandhian doctrine. Peasants want to be in control of their technology, old or new. They react with passive motherandfatherism when they are threatened with the power of a new technology which is completely out of their control.

Let me illustrate this describing villager's attitudes toward certain technological changes which have been markedly outside their spheres of knowledge and control. Great mechanical changes have passed over their society, bringing ruin to many old ways and slight or no profit to the peasant. Irrigation is one of the most striking instances: canals and tube wells are capable of bringing vast supplies of water to the thirsty crops, and yet villagers of the upper Ganges plain often look on canals and tube wells with deep distrust. In many places a sizeable proportion of villagers are not willing to use water from canals and tube wells that stand at their very doors, or will use it only when their land taxes are increased to the point that they must grow a crop of sugar cane, which requires more irrigation than an old fashioned well can produce. The canal, then, seems to them to be a coercive device by which government can extract more work and more money from the peasants. The canal is bad, many villagers say, because all must pay the same higher taxes to support the canal which distributes its water very inequitably. There is always fighting among the farmers who have to use water from the same canal distributary channel, the ones at the far end always complaining that most of the water is taken by those at the near end. What is more, the canal agents universally demand small bribes from the farmers, who are helpless to resist them. The farmers cannot send up complaints against the petty officials who are exploiting them without incurring great cost, and without perhaps suffering ultimate reprisals which may be far worse than the day-to-day costs and troubles suffered in the past. Tube wells are even worse, since entire control of the tube well's water lies in the hands of one outsider who operates the electric pump machinery. He normally takes large personal fees for giving the water on time and in full quantity, which raises the cost of tube well water to an amount more than double the government's rate. Operators of tube wells are generally suspected of being criminals or of being in league with criminals, since they not only have power and take bribes, but move about the rural areas in trucks, sometimes at night, and associate with literate urban people of the landlord class.

What the villagers say about the new technology then is that it is operated by corrupt people who have come to prey upon them, the ignorant and helpless ones who do not know how to run a canal lock or an electric pump. Villagers feel much



the same way about tractors, gasoline flour mills and hospitals. All of these complicated devices are beyond the range of their social control. The mechanic, the canal agent, the clerk and the doctor are able to exploit the peasant without check or redress and are therefore immoral. The range of activities within which the villager can exercise some moral control is, to be sure, a very narrow one; this range may not even be as large as the village itself. It is more likely to be the range of the family, or the clan or the ward of the village. This, then, is one reason why in India Gandhi's program of small-scale industry -- industry on the scale of the family or small group of families -- makes sense to villagers. If enthusiasm and self-acting energy are to be mobilized from villagers in programs of technological change, then this problem must be considered: that large-scale centralized programs are doomed to a minimal or negative response so long as they leave the villager dependent upon persons who are utterly beyond his familial type of group controls. Public health, medicine, improved seeds, more water and fertilizers must somehow be worked into the area of social control within the village where they will be handled morally and for the maximal good of all. Or, conversely, village organization must be trained upward to handle such new jobs; it is not now competent. What is clear is that the villager's dependency cannot be realized in fact. The outsider can never really bring prosperity to the village in the simple, one-directional way in which a mother and father feed and clothe a child.

Technological change in overdeveloped areas has stimulated not only attitudes and several competing philosophies but also regular social institutions with their own structure of rank and power. Such organization has made deep inroads into the structure of government. Government is, of course, the biggest mother and father of them all, the source, in fact, of mother and fatherism -- though my villagers are more apt to refer to Government agencies obscenely as their "step-mothers" or their "mothers-in-law." Only in overdeveloped Asia does one find "government" spelled with a capital "G" and inflected with the plural number as it is in India. Indian government officials who are especially deputed to create development and change are legion. Their agency has been extended right down to the level of the village itself, so that each village falls within the sphere of a whole hierarchy of official Development Officers, Development Inspectors, Development Leaders, Development Trainees, etc. Many of these developers were selected for their political work during the independence struggle. Few have been able to do much beyond the writing of programs and slogans. Most lack any technical knowledge, and few are competent in the social and administrative techniques which would be essential to transcend the inherent handicaps of a Government department in the rural countryside. Most serious of all, the official developers lack material resources. Point IV will bring some of the material resources with which to carry out the programs that the local official developers have been dreaming of for years. But Point IV in many lands such as India cannot and will not be operated entirely by the local persons who have been designated as official developers. To the extent that Point IV imports foreign experts and hires local technicians who are not officials, it will be setting up a rival bureaucracy for development. Cutting around the official developers does not, however, abolish them; both the official developers and the special Point IV staff will be there carrying on their work long after the foreign techni-



cians have gone. Diplomacy in this difficult competitive situation may have a large influence on the ultimate success and spread of the new techniques which are introduced. Potentially, the situation is fraught with jealousy; either side may try to discredit the other's claim to be the real leaders of successful change. I know of one great development project in India where rivalry between the effective workers inside the project and the ineffective official developers outside it has led to discontent and wrangling on a scale which cripples the technical work. Solution of such inter-group problems of power is not just a matter of higher policy, but one of day-to-day good politics on all levels.

Technological change in overdeveloped rural areas implies a re-development, a re-structuring of patterns. The course of that re-development may be determined by the pre-existing technology of the rural people, by the way in which re-development is connected with rural social life and culture, and by the way in which those who introduce new techniques manage their own peculiar structure of power.

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## SOME OBSERVATIONS ON MONETARY POLICY IN UNDERDEVELOPED COUNTRIES

These observations deal with some phenomena characteristic of certain underdeveloped countries which are considered essential for an understanding of the monetary problems peculiar to them. No attempt has been made so far to determine the importance of these phenomena for the analysis of monetary problems faced by underdeveloped areas. By stressing these peculiarities I hope to contribute insights of some practical value because the much neglected differences that exist between certain monetary phenomena common to many underdeveloped countries and those characteristic of more advanced ones are probably accountable for the frequent errors made by economists and others who try to apply the knowledge and experience gained in industrialized countries to the monetary problems of backward areas.

### I

Let us start with some phenomena that bear upon the shape of the liquidity preference curve of the community as a whole. As a point of departure we might take the classification of motives underlying the desire for liquidity which was introduced by Keynes, who stated that the forces determining the amount of money the public wants to hold at any given time and rate of interest are the transaction motive, the precautionary motive, and the speculative motive. The transaction motive does not interest us very much in this context. There is no reason why in underdeveloped countries it should play a greatly different role from that in advanced ones. It seems likely, however, that since there is a less perfect organization of the market more money might be needed for a given amount of transactions. But this tendency will be largely counteracted by the fact that in underdeveloped countries many transactions do not involve money payments, and that they display probably a somewhat greater vertical integration of production. But both cases are quite similar, since we find an approximately linear correlation between money and economic activity.

Let us take up Keynes' second motive for liquidity, the "desire for security as to the future cash equivalent of a certain proportion of total resources." Before entering into this matter some remarks on the meaning of cash are called for. In accordance with the saying that "money is what money does" we might consider objects as different as corn, U.S. dollars, shells, louis d'ors, checking deposits in foreign banks, and many other things circulating as cash in many underdeveloped countries. Actually, looked at from a functional standpoint, one or more of these objects might represent a more perfect kind of money than whatever has been declared legal tender. But here we are interested in the differences between industrialized and underdeveloped countries which are relevant to monetary policy. We will concentrate, therefore, on that form of cash over which monetary authorities in both areas have uncontested control, i.e., legal tender of no intrinsic value. Of course we shall not omit from consideration money substitutes



mentioned before whenever they are of importance for the discussion.

Considering now the amount of cash (or more properly, legal tender), held by the public of underdeveloped countries from precautionary motives, it seems reasonable to assume that it is, by any standard, a negligible sum. For the following reasons it probably will be an insignificant percentage of total resources, of the national income, and of total cash in circulation.

1. In underdeveloped countries many persons have little or no contact with the monetary -- and not even with the non-monetary -- exchange economy. If an economic unit, in most cases, the family, has always been largely self-sufficient economically it might never think of hoarding money for precautionary reasons. And even if we assume the existence of fairly well developed markets, the exchange of goods takes place, in many backward areas, without the use of money as an intermediary so that even under such altered conditions hoarding of money will be of little importance.

2. Backward countries are poor countries. If resources are generally scarce, that is, if most people do not have resources over what they need to satisfy their most pressing day-to-day physical needs, they will allot nothing, or only very little, to reserves for a rainy day. And virtually no hoarding will take place. This failure to hoard money (unlike similar tendencies sometimes observable in advanced countries) is not due to the unwillingness to save, or to the preference for non-monetary savings, but to the incapacity to put aside any money. This represents, therefore, a much more permanent and intractable phenomenon.

3. Cultural and religious differences between industrialized and some backward countries probably produce differences in time preference. According to one theory, economic development is due, in part, to the willingness of a significant sector of the population to make provision for the distant future at the cost of present consumption. If this is correct, the very factor responsible for the backwardness of certain areas militates against the accumulation of monetary hoards.

4. In many underdeveloped countries legal tender issued by local monetary authorities does not assure (or in the eyes of most individuals concerned does not seem to assure) with a sufficiently high degree of probability future demand over resources in general. More or less pronounced inflation has probably occurred much more frequently in the recent history of underdeveloped countries than of industrialized ones. Devaluation had a similar effect for the holders of large cash balances in economies where the price of many products is externally determined, even though local currency might not have been inflated following devaluation. Then again there have been instances of individual confiscation and of general abrogation of the value of money. Past experiences of this kind will color future expectations for a long time, perhaps for several decades, even if no good reason could justify a lack of trust in the future value of the currency. Finally, the low esteem in which, justifiably or not, public officials are held in many underdeveloped areas, make the public suspect that cash, whose future value depends largely upon the honesty, efficiency, and intelligence of these officials, offers no guaranty for the future command of resources.



Disagreeable monetary experiences of these kinds have also happened quite often in industrialized countries, and have provoked similar reactions. The last argument, therefore, may apply more fully to some advanced countries than even to the "worst" underdeveloped one. But if one looks at underdeveloped and industrialized countries as two major separate groups, it can not be doubted that factors causing distrust in the future value of money are far more common in the first group.

5. The opportunity cost of keeping liquid is very high in underdeveloped countries. When relatively safe investments yield fairly high returns, the public will be much less inclined to keep money for sudden emergencies than when returns on such investments are low. I will illustrate this point by a numerical example. Assume that both in an underdeveloped and developed country the loss suffered from a sale of securities or other non-monetary assets, at an inopportune moment, will amount to 5% of the original purchasing price. Assume also that in both countries the probability of being obliged to make such a sale at the end of one year in order to become liquid for an unforeseeable emergency is esteemed to be an even one. If the rate of return on such investment is less than 5% (as is likely in a developed country) a cautious person will not run the risk of converting at the beginning of the period ready cash into a non-monetary asset. But if the return on investments is in excess of 5% (as it is likely in an underdeveloped country) even a cautious person will see no reason to stay liquid.

As for the speculative motive, all these considerations except the third and fifth apply also to it; but an additional argument must also be taken into account.

6. Due to the absence of organized markets the opportunities for potential speculators are limited in most underdeveloped countries. His desire to enter into speculative transactions of such a nature as would require large cash balances usually could manifest itself only in some crude form of bearishness. But in most underdeveloped countries prices fall only very rarely, at least during prosperity. And only at this time do most potential speculators have any money to speculate with. It means taking a rather long chance to gamble on the occurrence of falling prices. The number of persons wanting to hold cash for speculative purposes will be much smaller than in industrialized countries where, even during prosperity, promising opportunities for bearishness are relatively frequent.

7. Finally, the fifth argument may be stated in a modified form with regard to the speculative motive. The higher the current rate of interest, the more unfavorable are the odds against keeping cash balances for speculative purposes. For example, if the current rate of interest is 2% (as might well be in a developed country), a person who keeps liquid in anticipation of a .5% rise in the interest rate will be able to purchase securities at so very much lower prices, if he guessed right, that the temporarily foregone interest is of little importance. But if the current interest rate is 10% (as might well be in an underdeveloped country) two considerations speak against keeping liquid in expectation of a rise in the rate. (1) One foregoes five times as much income by keeping liquid and not getting any interest for the time being. (2) A much more unlikely rise in the rate of 2.5% is needed before a security can be purchased at similar "bargain" prices. In other words, the price of the



lottery ticket is much higher, while the chances of winning are much lower.

Up to this point we have analyzed primarily the reasons why in an underdeveloped country any given rate of interest will result in a much lower demand for liquidity than in a developed country. In other words, we have stressed those phenomena which are responsible for the location of the liquidity preference curve further to the left on a conventional graph in which the rate of interest is measured along the abscissa and the quantity of money along the ordinate.

But the smaller demand for money in many backward areas is not only due to this shift of the curve to the left; it is of equal importance that the rate, likely to prevail at any given moment in an underdeveloped country, will probably be much higher than in an industrialized area. This phenomenon has been stressed already in points 5 and 7. There are, of course, many other good and well-known reasons why a high rate of interest deters the holding of cash. Thus we have not only a shift of the curve to the left but also a movement along the curve in the same direction. Let us now turn our attention to the implications of the higher rate of interest and lower inclination to hold cash, and ask whether and how the former can be lowered and the latter be raised. But first we must call attention to some further basic differences between most industrialized and underdeveloped areas relevant in this context which center upon phenomena affecting the mechanism of international transactions.

8. In underdeveloped countries the percentage of locally consumed luxury goods of foreign origin is probably higher than industrialized areas. This is due to the fact that the manufacture of mass produced luxuries (for example, automobiles) presupposes the existence of productive facilities and of a large nearby market, such as is found only in highly industrialized countries. Another reason, which should not be underestimated, is the inferiority complex characteristic of the moneyed class in many underdeveloped areas. This causes them to esteem more highly articles produced abroad. Hence these are converted in the minds of potential purchasers into luxury items merely because of their foreign origin. I have cases in which more expensive imported foods, though inferior in taste, appearance, and nutritive value to their home grown equivalents, were preferred by most consumers in the upper income groups in an underdeveloped country.

This leads to the conclusion that the public's marginal propensity to consume imported goods will generally be higher in underdeveloped than in developed countries; it even might be greater than unity. Assume that a consumer, prior to a given increase in his money income, spent in each income period  $X$  Dollars on a certain, home grown, "inferior" product. If his money income now increases by  $X$  Dollars, he might decide to buy instead a "superior" product of foreign origin, costing  $1.5X$  Dollars, and to hoard the remainder, or  $.5X$  Dollars, of his additional income. Owing to the substitution effect a marginal propensity to import greater than unity is thus reconcilable with a marginal propensity to consume of only one-half. Anybody familiar with underdeveloped countries can testify that this is not a paradox of merely academic interest but quite a common phenomenon, for the division between inferior and superior goods often coincides with that between domestic and imported merchandise.



9. The classical theory of the importance of relative price changes as an equilibrating factor in international trade is probably more correct than is generally conceded, if it is applied to underdeveloped areas. The standard class room argument against it, that the heterogeneity of products entering international trade results in a very low price elasticity of substitution between domestic and foreign products is more naive than the argument it is supposed to demolish. For physical heterogeneity, which usually characterizes products in international trade does not necessarily imply functional heterogeneity. To use a "quasi-Ricardian" illustration, port wine might be considered a very good substitute for ale by British consumers, if the latter becomes too expensive. Under modern conditions a washing machine might well serve in place of a washer woman in underdeveloped countries, if the wages of the latter rise greatly, even though the two substitutes do not resemble one another physically.

The importance of such relative price changes becomes obvious if it is remembered that the price elasticity of supply of certain kinds of labor is low in many underdeveloped countries. An increase in demand will raise its cost considerably but will not bring forth much additional supply. But a high elasticity of substitution exists between many personal services (on which is spent a large proportion of the income of the wealthy in underdeveloped countries) and durable consumer goods, which must be imported. Equally, if not more, important is the fact that substitution of capital for labor might be induced on an even larger scale by relative price variations in the factor market. Thus, relative price changes exert a more frequent equilibrating effect in the international transactions of underdeveloped countries than is generally conceded.

10. A certain hybrid of the relative price and income effect will lead to a rapid increase of imports into underdeveloped countries when money incomes increase. The marginal propensity to consume manifests itself in poor countries largely in an additional demand for staple foods. The home supply of these foods is highly inelastic in the short run. But they are generally in the class of international commodities, at least in the border regions where, thanks to short distances and the ease with which custom controls can be evaded, costs of importing and exporting are insignificant.

Now, a given increase in money income will lead to a marked increase in the demand for staple foods at the former price. But no greater quantity can be supplied from home sources at this former equilibrium price. Depending upon friction and the place of a country in the international community two alternatives may take place. The price of basic foods may rise, attracting legitimate or illegitimate imports from surrounding regions. But also the increase of effective demand at the old price may cause additional imports.

11. Increased imports of capital goods will largely take the place of the accelerator effect which would manifest itself under analogous circumstances in more advanced countries. Assume, for example, that a 10% increase in general activity will lead to an equally strong expansion in the quantity of tonnage and passengers carried by the transportation system. This will require a 10% addition to the stock of equipment apart from the normal replacement rate, which we also assume to be equal to



10%. In an industrialized country this would double activity in the transportation equipment industries. In an underdeveloped country, in which domestic production of transportation equipment is of negligible magnitude, a doubling of transportation equipment imports will take the place of the accelerator.

12. Hoarding will often be transformed into holdings of hard currency and additions to bank accounts abroad. Thus it will constitute an export of capital.

Points 8 through 12 warrant the conclusion that in underdeveloped countries changes in money incomes will be correlated more closely with corresponding variations in the balance of international payments than in highly industrialized countries, even those with open economies. Thus a given increase in the flow of national income might lead, within a short time, to an increase of imports and capital exports whose combined magnitude might be equal to or even greater than the original increment in national income.

## II

A closer investigation of the low liquidity preference and high propensity to import goods and services and export capital may be made under two alternative assumptions. (1) No more labor will be forthcoming at the going wage rate, or at a higher one if prices rise in equal proportion (no voluntary unemployment and no money illusion). (2) More labor will be forthcoming at the going rate even if prices rise, or at higher wage rates with proportionally, or more rapidly, rising prices (money illusion and involuntary unemployment).

Assume first that the supply of labor is constant unless real wages are raised. Under these conditions monetary expansion can not stimulate real income, a proposition meeting with general agreement. But it is not quite so universally understood that, in the absence of exchange control, such a policy will have very little long run inflationary impact, and will lead quickly to foreign exchange losses equal, or almost equal, to the amount of internal monetary expansion, while the rate of interest will remain unchanged regardless of whether freedom of exchange exists or not.

We have mentioned earlier that in backward economies the marginal propensity to hoard local currency is very low. This will enhance, in the short run, the inflationary effect of income stimulation through monetary expansion. But the general price rise will not be so great as to nullify completely the rise in real income of groups other than exporters for the change in price of international goods will be small in the case of those articles of which the underdeveloped country is a consumer of only little importance. We may also assume that wealthy individuals whose real income decreases because their money income, earned from exports, remains constant while internal prices rise, will not reduce their spending by the same amount as others increase theirs. Thus, in the short run, we may expect real income for the private sector of the economy as a whole to increase, with the result that changes discussed under points 8, 10, 12 (and indirectly also 11) will occur. Foreign goods will become relatively cheaper bringing into play changes under points 9 and 10. The tendency to spend absolutely,



and also relatively, more on foreign products and to increase hoards abroad will continue as long as any part of the money additionally created has not yet been converted into foreign exchange. For until all new income is so converted, effective demand rises by an equivalent amount; but we should not expect inflation to continue after all the money has gone abroad, on current or capital account. In most underdeveloped countries velocity of circulation is quite high and unions are not strong enough to raise the general level of money wages during the short period of additional money flows. Owing to the high velocity of circulation (which implies also that the conversion of additional money flows into foreign exchange will occur very rapidly) inflationary pressures will soon be over.

An illustration may serve to show why these factors come into play so rapidly in restoring the status quo. If the marginal propensity to import is equal to 0.3 (an assumption not at all extreme in the light of what has been explained) more than 9/10 of the newly created money will have left the country after nearly 7 income periods. In most underdeveloped countries this would occur probably in less than half a year.

Still proceeding under the assumption that no more labor will be supplied in consequence of the increased demand caused temporarily by monetary expansion, we might ask next what happens to the rate of interest. As already shown, the increase in money incomes implies a simultaneous increase in real income, because prices of imported products do not rise appreciably. People will, therefore, probably save more, that is, lend more to investors at the existing rate of interest. Because of the high propensity to consume common to underdeveloped countries, it is probable that the amount of funds newly offered in the investment market will be so small as to be absorbed fully without a marked decline in the rate of interest. In other words, the curve relating quantity of capital and its marginal efficiency is probably elastic enough to permit the increase of capital stock from new savings to take place without a significant decrease in the marginal efficiency of capital.

A numerical example may help to show more clearly the various repercussions of monetary expansion. For this purpose the following arbitrary, but not unreasonable, assumptions are made about the relevant data in an underdeveloped country:

1. Value of existing capital = Local currency equivalent of \$1,000,000,000.
2. Marginal Productivity of Capital = 12%.
3. Elasticity of the capital demand curve with regard to interest = 2.
4. Value of International Reserves = \$50,000,000.
5. Marginal propensity to consume home grown products = 0.6.
6. Marginal propensity to consume foreign products = 0.2
7. Marginal propensity to save = 0.2.



8. All savings are offered in the investment market at the going rate or invested directly; none is hoarded.

9. Import content of investment

= 50%

If the government or the banks inject into the income stream an additional amount of currency equivalent to \$50 million at random the effects exhibited in Table I can be observed:

Table I  
(All figures in millions of \$)

| Round        | Internal Spending for: |            |        | Spent Abroad for: |            |       | Total Consumed | Total Saved & Invested |
|--------------|------------------------|------------|--------|-------------------|------------|-------|----------------|------------------------|
|              | Consumption            | Investment | Total  | Consumption       | Investment | Total |                |                        |
| First        | 30.0                   | 5.0        | 35.0   | 10.0              | 5.0        | 15.0  | 40.0           | 10.0                   |
| Second       | 21.0                   | 3.5        | 24.5   | 7.0               | 3.5        | 10.5  | 28.0           | 7.0                    |
| Third        | 14.70                  | 2.45       | 17.15  | 4.90              | 2.45       | 7.35  | 19.6           | 4.9                    |
| Fourth       | 10.29                  | 1.715      | 12.005 | 3.43              | 1.715      | 5.145 | 15.72          | 3.43                   |
| First to Nth | 100.00                 | 16.66      | 116.66 | 33.33             | 16.66      | 50.   | 133.33         | 33.33                  |

Total investment having increased by \$33.33 million, or 1/30 of the total capital invested; one might expect, under the assumption of a price (i.e., interest) elasticity of demand for investment funds equal to two, a drop of 1/60 in the rate of interest, i.e., a decline from 12% to 11.8%. This drop will be too small to induce the public to increase its liquidity to a marked extent, and thus the assumption that all the newly created money will be spent seems justified.

We have assumed that in our example the government or the banking system inject money into the economy at random. However, the results will not be significantly different if the newly created money is used, in the first round, exclusively for investment purposes. Table II shows this point.

The amounts registered in the first line are the original investment outlays; those in the second line correspond to the distribution between consumption and investment by income receivers of what they earned in the first round. In the third line (labeled "2nd to nth round") the amounts of the preceding line have been multiplied by 10/3. This is the magnitude of the multiplier in each round 3/10 of the income earned is spent abroad. In the last line the amounts in the first and third lines have been added to show the total effect of the original monetary expansion.



Table II  
(All figures in millions of \$)

| Round         | Internal Spending for: |                      |       | Foreign Spending for: |                      |       | Total Spending for:   |                      |       |
|---------------|------------------------|----------------------|-------|-----------------------|----------------------|-------|-----------------------|----------------------|-------|
|               | Con-<br>sump-<br>tion  | In-<br>vest-<br>ment | Total | Con-<br>sump-<br>tion | In-<br>vest-<br>ment | Total | Con-<br>sump-<br>tion | In-<br>vest-<br>ment | Total |
| First         | ..                     | 25.0                 | 25.0  | ..                    | 25.0                 | 25.0  | ..                    | 50.0                 | 50.0  |
| Second        | 15                     | 2.5                  | 17.5  | 5.0                   | 2.5                  | 7.5   | 20.0                  | 5.0                  | 25.0  |
| 2nd to<br>Nth | 50.                    | 8.33                 | 58.33 | 16.66                 | 8.33                 | 25.0  | 66.66                 | 16.66                | 83.33 |

In the second example, capital formation is twice as large as in the first. But the addition to the total stock of capital remains an insignificant proportion, so that we need not modify our remarks on the effect of the monetary expansion on the rate of interest.

Both examples may be adjusted so as to permit consideration of hoarding. This possibility must not be overlooked since the public might desire to increase its liquidity merely because monetary incomes have increased even though the rate of interest has not, or only slightly, been lowered. Our first seven points lead to the conclusion that the inclination to increase money stocks as income increase will not be very strong. If we allow about 5% of hoarding of incomes received a very liberal provision is made for the effect of the increase in incomes. Table III shows what will happen under these circumstances. It is based on the additional assumptions that

A. during each income period there will be:

1. hoarded . . . . . 1/21
2. spent at home . . . . . 14/21
  - a. on consumers goods . . . . . 12/21
  - b. on investment goods . . . . . 2/21
3. spent abroad . . . . . 6/21
  - a. on consumers goods . . . . . 4/21
  - b. on investment goods . . . . . 2/21

B. The banking system, or the government through deficit spending, finances the first round (investment of \$53.89 million). If the banking system undertakes the financing it is also assumed that this is done by monetary expansion.

The additional assumptions introduced here result in no change of the relative importance of the various purposes for which income was assumed to be spent in the earlier examples.



Table III  
(All figures in millions of \$)

| Round         | Internal Spending for: |                      |       | Foreign Spending for: |                      |       | Total Spending for: |                       |                      |
|---------------|------------------------|----------------------|-------|-----------------------|----------------------|-------|---------------------|-----------------------|----------------------|
|               | Con-<br>sump-<br>tion  | In-<br>vest-<br>ment | Total | Con-<br>sump-<br>tion | In-<br>vest-<br>ment | Total | Hoard-<br>ing       | Con-<br>sump-<br>tion | In-<br>vest-<br>ment |
| First         | ...                    | 26.92                | 26.92 | ...                   | 26.92                | 26.92 | ...                 | ...                   | 53.85                |
| Second        | 15.38                  | 2.56                 | 17.95 | 5.13                  | 2.56                 | 7.69  | 1.28                | 20.51                 | 5.13                 |
| 2nd to<br>Nth | 46.15                  | 7.69                 | 53.85 | 15.38                 | 7.69                 | 23.08 | 3.85                | 61.54                 | 15.38                |
| 1st to<br>Nth | 46.15                  | 34.62                | 80.77 | 15.38                 | 34.62                | 50.   | 3.85                | 61.54                 | 6.23                 |

The fraction of  $1/21$  for hoarding is used since, on one hand, this comes close to our estimate of 5%, and, on the other, represents a fraction which avoids complicated arithmetic and leads to results in round figures. The same consideration explains the use of the figure of \$53.85 millions for original investment. This leads to the same loss of foreign exchange as in the preceding example (\$50 millions).

An amount of original bank expansion of deficit financing (\$53.85 million) that calls forth an eventual loss of foreign exchange of \$50 million (as in the preceding example) has given rise to a slightly larger amount of net investment and slightly smaller amounts of income and consumption, than result in the example presented in Table II. This is obviously due to the newly introduced assumption of a limited propensity to hoard. But the efficiency with which foreign exchange has been used for investment purpose has not greatly increased. Even now only 69% of the foreign exchange "lost," a percentage only slightly higher than that in the preceding illustration, has been employed for investment purposes. All the rest is meant for consumption. It is not likely that the small increase in liquidity which might result will exert any repercussions on the rate of interest, or vice versa.

Summarizing our findings up to this point, we may say that a monetary expansion in an underdeveloped country without exchange controls is likely to have these repercussions:

1. An increase in total capital between .5 and 1.5 of the amount of primary monetary expansion is likely to take place.
2. Foreign exchange losses will be equal, or almost equal, to the amount of primary monetary expansion.
3. Liquidity at home will increase very little or not at all. Whatever small increase will take place will have to be deducted from the exchange losses.



4. No permanent inflation will occur.

5. The addition to capital stock will be relatively small, so that the marginal productivity of capital and the rate of interest will drop only negligibly.

The assertion that no permanent inflation will take place seems to be contradicted by recent experience. But a closer inspection of the evidence which seems to disprove the thesis of this paper empirically will show that the condition of "other things remaining equal" had not been fulfilled. The worldwide inflation of the last five years implies that either prices of foreign products or services did not get out of line whenever monetary expansion at home took place, or got less out of line than if foreign products and services had shown no price increase at all. In the first case the mechanism of international adjustment discussed earlier failed altogether, in the second case it was only partially effective. The tendency to raise trade barriers whenever the balance of payments worsens, but not to remove the obstacles after conditions have returned to normal, of course, also lower the effectiveness of the adjustment mechanism.

### III

Our analysis was based so far on the assumption that there exists no pool of unemployed willing to work at the going wage rate. Must our conclusions be modified substantially if a reserve army of employables is present?

In underdeveloped countries the presence of a large reserve of men willing to work at the going money wage rate, even if their current real income should fall slightly, is much more uncertain than is generally assumed. Those who assert their existence usually call attention to the large body of men unproductively employed in the cities (lottery ticket vendors, boot blacks, scavengers, etc.) and to the hidden unemployment on farms. At first glance this seems to be a convincing argument. But a closer examination would reveal that many of these potential workers probably would not accept productive employment if it were offered to them. To many of the first group the nonmaterial rewards of not being subject to industrial discipline outweighs the advantage of a slightly higher real income, to be earned in productive employment. This presupposes further that the material rewards to be earned in unskilled jobs (the only ones for which most of these men are qualified) are higher than their present earnings, a fact which may not always be true. Granting the hidden unemployment on farms, its existence means neither that underdeveloped rural inhabitants would be willing to transfer to more productive employments, nor that jobs which "keep them busy" all the time really represent more productive employment. Only if it is shown that full time work in productive employment is more attractive and more productive than part time employment in agriculture, can these agricultural laborers be considered a reserve of men whose most efficient integration into the economy is prevented only by a lack of effective demand. In other words, even disregarding the adverse effect on real wages that occurs when more men are employed, it seems unlikely that the supply curve of labor has an elasticity approaching infinity with regard to money wages.



Another serious complication, is the expectation that real wages decline as more men are employed. Underdeveloped countries, by definition, have no or very little excess productive capacity nor can they produce additional capital goods without increasing greatly their imports. Thus if more money is injected into the income stream, enabling entrepreneurs to hire more men, the direct effect will be a lowering of the marginal product of labor. Of course, in the long run, and as it becomes possible to import capital goods, this tendency will be reversed. But imports cannot be financed out of inflationary monetary policies, but must primarily be paid out of existing international reserves and only to a negligible extent out of the increase in export potential brought about by monetary expansion. Thus we might say that the net effect of the monetary expansion is a lowering of the real per capita wage. This decline in real wages has an adverse effect on the labor supply curve, since we must keep in mind that money illusion will be nonexistent or much less important than in developed countries because of the factors responsible for low liquidity preferences. In other words, the shift to the right of the demand curve for labor would, *ceteris paribus*, cause an increase in employment. But in our case, things do not remain equal. As the general price level rises, less labor will be offered at any given money wage. A shift of the labor supply curve to the left will occur. The increase in employment, therefore, will be much less than it appears at first sight, and even might not take place at all.

We conclude, therefore, that even under conditions of hidden or partial unemployment, characteristic of underdeveloped countries, the additional quantity of labor forthcoming as a result of an injection of money into the income stream is definitely limited. Consequently the rise in real national income also will be narrowly limited. But an intelligently handled monetary expansion does permit an increase in real national income up to a certain point, provided the detrimental effects of lowered per capita real wages are not so strong as to vitiate completely the beneficial effect on the increase in demand for labor resulting from the shift of the labor demand curve toward the right. Moreover, the short-run inflationary effect, mentioned earlier when the case of no unemployment was discussed, will be weaker. At the same time the forces resulting in losses of exchange through unessential imports and additional capital exports remain operative. They may be mitigated only slightly, as a result of the increase in national income which may require higher transaction balances and hence perhaps cause a general shift to the right of the liquidity preference curve.

This exposition might be interpreted as generally supporting the thesis that controlled inflationary policies will aid underdeveloped countries in their development efforts. It is certainly true that private and social overhead capital can be created and national income permanently increased by inflation, if there exists a surplus of foreign exchange. But the limited increase in employment and real income attributable directly to monetary expansion is greatly outweighed by well-known adverse effects which tend to lessen national income indirectly under inflationary conditions and which moreover may create social injustice. These results are unavoidable when the country lacks reserves of foreign exchange, has no controls, or cannot devalue, then permanent inflation will take place.



Even in the more favorable case, in which the amount of monetary expansion is not greater than the value of international reserves at the disposal of the economy, an inflationary policy is objectionable. In this case expansion will induce a large amount of non-essential imports, that is, it will not result in the most efficient use of foreign reserves for development purposes. Also, as we have shown earlier, the increase of money incomes will produce primarily a rise in prices and only to a very limited degree an increase in real income. These disadvantages do not outweigh, of course, the benefits arising from the growth of the stock of capital brought about by this policy. But foreign reserves of most underdeveloped countries are small in relation to overall capital needs, and therefore these countries can not indulge in the luxury of any but the most efficient use of these reserves. Hence a "fairly" efficient use of them is simply not efficient enough, provided a more efficient use is at all possible.

Under most circumstances it is possible to use foreign exchange more efficiently by the proper use of taxation. Table IV shows this point. The same general assumptions as stated in the preceding illustration are made, but it is further assumed that the government imposes an additional tax equal to the internal cost of the planned investment program (\$50 million, in our case). Part "A" of Table IV shows the positive income effect of a tax of the same magnitude as the internal cost of the investment program. Part "C" shows the net effect of both measures: Investment is bigger than before and no unessential imports have taken place.

Thus we reach the final conclusion that if it is possible to levy sufficient taxes to cover the internal direct cost of an investment program, it is always wiser to do so than to use monetary expansion or fiscal deficits, since the optimum use of foreign exchange reserves will be assured and other detrimental effects will be avoided.

We believe also to have shown in this paper that any attempt made in an underdeveloped country to lower the rate of interest by means of fiscal or monetary policy is doomed to fail or, at least, will be much too costly in terms of foreign exchange to be feasible. Finally, in most instances, increases of the real national income or other benefits obtained by monetary expansion, can be gained more efficiently through the use of non-inflationary measures.

Michael Zuntz

Banco de Guatemala



Table IV  
(All figures in millions of \$)

| Round   | Internal Spending for: |                      |         | Foreign Spending for: |                      |        | Total         |                       |                      |
|---|------------------------|----------------------|---------|-----------------------|----------------------|--------|---------------|-----------------------|----------------------|
|   | Con-<br>sump-<br>tion  | In-<br>vest-<br>ment | Total   | Con-<br>sump-<br>tion | In-<br>vest-<br>ment | Total  | Hoard-<br>ing | Con-<br>sump-<br>tion | In-<br>vest-<br>ment |
| Part "A": Effects of \$100 Million Investment Program |                        |                      |         |                       |                      |        |               |                       |                      |
| First   |                        | 50                   | 50      | ...                   | +50                  | +50    | ...           | ...                   | +100                 |
| Second  | +28.33                 | + 4.78               | + 33.11 | + 9.56                | + 4.78               | +14.33 | + 2.22        | + 38.22               | + 9.56               |
| 2nd to<br>Nth   | +85                    | +14.33               | + 99.33 | +28.67                | +14.33               | +43    | + 6.67        | +114.67               | - 28.67              |
| 1st to<br>Nth   | +85                    | +64.33               | +149.33 | +28.67                | +64.33               | +93    | + 6.67        | +114.67               | +128.67              |
| Part "B": Effects of \$50 Million Additional Tax      |                        |                      |         |                       |                      |        |               |                       |                      |
| First   | -28.33                 | - 4.78               | - 33.11 | - 9.56                | - 4.78               | -14.33 | - 2.22        | - 38.22               | - 9.56               |
| 1st to<br>Nth   | -85                    | -14.33               | - 99.33 | -28.67                | -14.33               | -43    | - 6.67        | -114.67               | - 28.67              |
| Part "C": Net Effect of Investment and Tax            |                        |                      |         |                       |                      |        |               |                       |                      |
| First<br>to<br>Nth                                    | ...                    | +50                  | + 50    | ...                   | +50                  | +50    | ...           | ...                   | +100                 |



# A NOTE ON THE CONDITIONS OF ECONOMIC PROGRESS IN THE MIDDLE EAST

It is generally agreed that the Middle East (1) is a well defined "culture area", with its own special characteristics. (2) "The unity of the region", as has been well said, "is essentially cultural -- the product of a very long historical process working in somewhat similar geographic backgrounds". The Middle East is the original home, and the most important single segment, of the civilization named by Arnold Toynbee, "The Islamic Society", which extends from the Atlantic Ocean deep into Central Asia and Northern India.

Whether the region forms an economic unit is more questionable. On the one hand, there is very little integration between its component parts: thus in 1949 intraregional trade, consisting largely of oil products, amounted to about 8 per cent of the total foreign trade of the Middle Eastern countries. (3) On the other hand, there is much similarity in the economic structure of the various Middle Eastern countries, due partly to a basic homogeneity in geographical background, notably the great aridity of the region; (4) and partly to their cultural affinities and ancient political ties.

The object of this note is to compare present conditions of economic and social development in the Middle East with those of other major underdeveloped regions. For this purpose, twelve criteria of development have been chosen and a table has been

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- (1) The definition given in the Review of Economic Conditions in the Middle East, published by the United Nations in 1951 (E/1910), has been followed here, viz., "The Nile valley, the Fertile Crescent, the Arabian peninsula, the Iranian plateau and Asia Minor". For lack of data, the outlying parts of the region, i.e. Afghanistan, Southern Arabia and the Anglo-Egyptian Sudan, will not be discussed. It may be argued that Afghanistan belongs to the Indian sub-continent rather than to the Middle East.
  - (2) See Rafael Patai, "The Middle East as a Culture Area", Middle East Journal, Winter 1952; and Carleton Coon, Caravan, New York, 1951.
  - (3) Review of Economic Conditions, table 41.
  - (4) In a classification of climates made by the United Nations Educational, Scientific and Cultural Organization, all the Middle Eastern countries except Cyprus and Lebanon are put in the group in which "Extreme arid, arid and semi-arid (zones) comprise 33 per cent or more of total area" and most of the region is included in the group in which "Extreme arid and arid (zones) comprise 67 per cent or more of total area". Peveril Meigs, "World Distribution of Arid and Semi-Arid Homoclimates", United Nations Educational, Scientific and Cultural Organization document NS/AZ/37.



constructed comparing two Middle Eastern countries with selected countries from other regions, where temperatures are not too dissimilar, viz., Southern Europe, Latin America, Asia, and Australia. We shall first examine whether, and to what extent, these two Middle Eastern countries are representative of the region, and then proceed to compare the economic and social level of the Middle East with that of other regions. Lastly, an attempt will be made to account for the relative lag in social, as compared to economic, development of large parts of the region.

#### LEVELS OF DEVELOPMENT WITHIN THE REGION

The choice of Egypt and Turkey was mainly dictated by the fact that, except for Israel (whose level is well above that of the region) they are the only two countries for which the required data were available. But their selection can be defended on other grounds. Between them, Egypt and Turkey account for at least two-fifths of the population of the Middle East and for almost three-fifths of its foreign trade (excluding petroleum). Their relative position within the region is shown by the following comparisons:

1. Per capita income. Very tentative estimates for 1949 made by the United Nations (1) give the following per capita dollar incomes: Israel, 389; Lebanon, 140; Turkey, 125; Syria, 100; Egypt, 100; Iran, 85; Iraq, 85; Afghanistan, 45; Saudi Arabia, 45; and Yemen, 40. While the figures cannot be regarded as accurate, the orders of magnitude involved do not seem out of line with other available information about these countries.

It will be seen that Egypt is very slightly, and Turkey is distinctly, above the average for the region. The rapid growth of oil production, and the revenues derived therefrom, in the Persian Gulf area is, however, raising the average for the region to the Egyptian level.

2. Foreign trade. The combined value of imports and exports in 1950, expressed in United States dollars (2), has been divided by the population. The resultant figures, in United States dollars per capita, are 56 for Egypt and 26 for Turkey. For the other Middle Eastern countries they are: Israel, 230; Cyprus, 137; Iran (including petroleum exports), 60; Syria and Lebanon (in 1949), 58; and Iraq (excluding petroleum exports), 33; taking into account exports of petroleum, it will thus be seen that the figure for Turkey is below the average for the region while that for Egypt approximates the regional average; while if oil exports be excluded, the reverse is true.

3. Energy consumption. Per capita energy consumption in 1950 has been calculated for most of the countries of the region (taking into account all kinds of fuel) on the basis of coal equivalents. (3) The resulting figures, in tons per capita, are 0.15 for Egypt and 0.26 for Turkey. Figures for other Middle Eastern countries are: Israel, 0.80; Lebanon, 0.35; Cyprus, 0.27; Iraq, 0.19; and Syria, 0.11. It may therefore be taken that the Egyptian figure represents the regional average.

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(1) Review of Economic Conditions, 12.

(2) United Nations, Statistical Yearbook, 1951.

(3) Ibid.



Another index, which has not been included but which throws additional light on energy consumption, is output of electricity per capita. The figure for Egypt is about 35 kilowatt hours per annum and that for Turkey, 37. Output in Israel is 329; in Lebanon, 96; in Iraq, 16; in Syria, 15; and in Iran, 12. (1) The Egyptian figure is therefore well above the regional average but this is offset by greater consumption of petroleum in other countries. The Turkish figure is also well above the regional average, and in Turkey large scale use of coal results in a relatively high figure for energy consumption.

4. Steel consumption. Per capita consumption figures for both Egypt and Turkey in 1947 were about 10 kilogrammes. Figures for other countries are not readily available, and are of doubtful accuracy in view of the large scale pipeline construction in most of these countries in recent years. It seems probable, however, that the regional average is somewhat below the figure given for Egypt and Turkey.

5. Cement production. Per capita cement production in 1949 or 1950 amounted to 54 kilogrammes for Egypt and 18 kilogrammes for Turkey. Output in other Middle Eastern countries was as follows: Israel, 271; Lebanon, 215; Syria, 20; and Iran, 4. The Egyptian figure is, therefore, well above the regional average and the Turkish about equal to the average.

6. Merchandise carried on railways. The total number of ton/kilometres carried on railways (2) has been divided by the population; the resultant figures, in ton/kilometres per capita, are 90 for Egypt and 121 for Turkey. Figures for other countries are: Iraq, 132; Israel, 57; Iran, 43; and Syria-Lebanon, 25. It will thus be seen that both Egypt and Turkey are well above the regional average. This is, however, offset, at least partially, by the much more developed road systems of some of the other countries. (3) Thus, in 1948, the number of trucks per 10,000 of population was only 7 in Egypt and 5 in Turkey, whereas it was 92 in Israel and 40 in Cyprus, 30 in Lebanon, 27 in Syria, 22 in Iraq, and 11 in Iran.

It may therefore be said that, although the Egyptian figure for merchandise carried on railways is above the regional average, the discrepancy is not too great.

7. Food consumption. The only available recent figures are those for Egypt and Turkey which put per capita consumption per day in 1950 at 2,480 calories and 2,690 calories respectively. (4) Both these figures were the highest recorded in post-war years. Data on other countries is scanty. At one time Israel's consumption fell as low as 2,200 calories, (5) but it

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(1) Review of Economic Conditions.

(2) United Nations, Statistical Yearbook.

(3) See Review of Economic Conditions, table 32.

(4) Food and Agriculture Organization, Food and Agricultural Statistics, 1951.

(5) New York Times, 14 March 1952.



seems to have substantially risen since then. A study made by the Food and Agriculture Organization in 1946 (1) put Egypt's consumption at 2,200 calories, that of Iraq at 1,960, and that of Syria-Lebanon at 2,400. Consumption in Cyprus is well above the Egyptian level while the reverse is probably true of the other countries of the region.

It may therefore be tentatively assumed that the Egyptian figure is equal to, or perhaps a little higher than, the regional average.

8. Textile consumption. The Food and Agriculture Organization has calculated, by deducting exports and adding imports to production, average per capita consumption of major apparel fibres, viz., cotton, wool and rayon, during the years 1948-1950. (2) Available figures for the Middle Eastern countries are, in kilogrammes: Israel, 6.3; Syria-Lebanon, 4.4; Turkey, 3.9; Egypt, 3.2; Iraq, 3.0; and Iran, 1.9. It is therefore probable that Egypt is slightly, and Turkey is distinctly, above the regional average.

9. Life expectancy. No information is available for any Middle Eastern country other than Egypt. It seems safe to assume, however, that health conditions in Egypt are definitely below the regional average, certainly below those of Cyprus, Israel, Lebanon, Turkey, and probably below those of Syria and parts of Iran. It may therefore be assumed that the level of life expectancy in the Middle East is somewhat above the Egyptian figure.

10. Literacy rate. Here, too, available information is scanty. In Cyprus, 56 per cent of the population is literate. In Turkey, in the prewar period, 21 per cent of the population over 10 years of age was literate; this figure has since risen appreciably. In Egypt, the corresponding prewar figure was 15 per cent; it too has risen somewhat. In Israel, the literacy rate has been sharply reduced by the great inflow of Oriental Jews, but it must be at least 75 per cent. In Lebanon, at least two-thirds of the population are literate and in Syria, about one-third. In the other countries of the region, the literacy rate is probably around 10 per cent. The Egyptian rate is therefore approximately equal to the regional average while the Turkish is higher.

11. Newspaper circulation. The total circulation of daily newspapers, in 1949 or 1950, per thousand inhabitants, was as follows: (3) Israel, 234; Cyprus, 85; Lebanon, 81; Jordan, 28; Syria, 21; Egypt, 18; Turkey, 15; Iraq, 6; and Iran, 5.

The rate for Egypt may therefore be taken to be very slightly above the regional average; that for Turkey probably represents the regional average.

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- (1) Food and Agriculture Organization, World Food Survey, July 1946.
- (2) Food and Agriculture Organization: Commodity Series -- Per caput fiber consumption levels, Rome, January 1952.
- (3) United Nations, Statistical Yearbook, 1951.



12. Radio sets in use. The number of registered radios per thousand inhabitants is 11 in Egypt and 15 in Turkey. (1) In Israel, the corresponding figure is 113; in Lebanon, 33; in Cyprus, 22; in Iran and Syria, 11; and in Iraq, 6. The Egyptian figure is therefore representative of the region and the Turkish slightly higher.

#### COMPARISON WITH OTHER REGIONS

Summing up the result of these comparisons, it may be said that Egypt stands a little above the average regional level, but that the difference is not considerable. In certain respects, notably cement production and newspaper circulation -- and also foreign trade if Middle Eastern petroleum exports are excluded, as it is arguable they should be, since only part of their value accrues to the producing countries, in the form of royalties -- Turkey is closer to the regional average. But taking the picture as a whole, there is no doubt that development in Turkey has proceeded well beyond the level attained by the greater part of the region. Egypt, although slightly above the regional average, is more nearly representative. With this qualification in mind, we shall proceed to compare it with that of selected countries from other regions.

Latin America. The countries selected in this table include the three most developed states of Latin America, viz., Argentina, Chile and Mexico, and one which is somewhat less advanced, Brazil. All the available criteria show Argentina to be well ahead of the Middle East; Chile is well ahead of Egypt except in food consumption and life expectancy, in which it comes very close to the Egyptian level. Mexico is also on a somewhat higher level, except for foreign trade, a phenomenon which is to be explained by the fact that economic development in Mexico has concentrated on satisfying local needs, rather than on export products as has Egyptian cotton. Brazil is on a still lower level, but is also ahead of Egypt, except for foreign trade and food consumption.

If figures were available for the less developed parts of Latin America, viz., Central America and such countries as Bolivia, Peru, Ecuador and Paraguay, they would probably be below the Egyptian level. Taking Latin America as a whole, however, these less developed regions are overshadowed by the more advanced countries. It may therefore be stated that the Latin American average is well above the Middle Eastern level.

Asia. The countries selected include Japan, which is in a special category, and two more representative countries, India and the Philippines. Available evidence for Indonesia, which is not included in the table, indicate that it is on a distinctly lower level of development than India and the Philippines. Pakistan approximates India in many respects.

All available criteria show India and the Philippines to be much less developed economically than is Egypt. The same is true for social development in India, but not in the Philippines, whose literacy rate is higher.

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(1) United Nations, Statistical Yearbook, 1951.



The figures for Japan are interesting. Energy, steel consumption and merchandise traffic show its high level of economic development while life expectancy, literacy, newspaper circulation and use of radios show its high cultural level. The very low figure for national income is partly due to the low exchange rate used for conversion. The low rates of consumption of food and textiles, as well as the reduced volume of foreign trade, reflect postwar depression.

Taking the two regions as a whole, it may safely be stated that the Middle East is more developed economically, has a higher level of welfare, and is culturally more advanced than Asia, with the very important exception of Japan.

Europe and Oceania. Australia, France and Italy have been included in the table merely to accentuate the contrast between the underdeveloped regions and the high levels attained by more advanced countries.

The case of Greece is more interesting, since it serves to indicate conditions prevailing until recently in another relatively underdeveloped region, South East Europe. Comparison of criteria of economic development in Greece and Egypt show the former somewhat ahead in some, but by no means all, respects. Social conditions in Greece are, however, much better than in Egypt, as is indicated by life expectancy, literacy, newspaper circulation and registered radio sets. In both these respects, Greece is fairly typical of conditions prevailing in South Eastern Europe until the recent upheavals.

#### ECONOMIC AND SOCIAL PROGRESS

The reason for the cultural lag of the Middle East is to be found in the history of the last three hundred years. At the risk of simplification, it may be said that whereas Eastern Europe was affected, although belatedly, by the Renaissance and Enlightenment, the Middle East was influenced only by the Industrial Revolution. By the eighteenth century, Western European ideas were radiating all over Eastern Europe, books were being published in appreciable numbers and schools were being opened. A striking proof of the penetration of Western ideas is provided by the repercussions of the French Revolution on Eastern Europe; to take only two examples, in 1791 the Poles promulgated a constitution based on the French model, while in 1797 delegates from most parts of Greece met in a secret conclave and planned a national uprising conditional upon French help. It was only later, in the nineteenth century, that the Industrial Revolution impinged on Eastern Europe and that Western capital began to pour in on a large scale.

In Latin America the process was more complicated. Until the end of the eighteenth century, Latin America's contacts with Europe were made almost exclusively through Spain and Portugal and European ideas and institutions reached that continent only through the Iberian filter. Hence the influence of the Renaissance in Latin America was restricted to certain fields, such as music and painting, and administrative and political methods. The Enlightenment began to penetrate Latin America at the very end of the eighteenth and the beginning of the nineteenth centuries. After that, however, social and cultural development



marched alongside economic development. As a result, there is not much discrepancy between the level of economic development and that of social development in Latin America, compared to the relation prevailing in both more advanced and more backward areas.

Egypt, on the other hand, was entirely untouched by social and cultural developments in Europe until first Mohammed Ali and then European capital opened up its resources. As a result, Egypt's economic sector was developed relatively quickly while its social life was neglected. The consequence may be seen in all aspects of Egyptian social life, but perhaps most clearly in education and health. In this respect, Egypt is not typical of the region, since its economic development started earlier than that of any other country. Until the last forty years, Turkey was less subject to economic influences, and more to social. Lebanon departs still further from the Egyptian model, since missionary activity in the eighteenth and nineteenth centuries began to raise its social and cultural level long before its economic resources began to be tapped; some of this activity had repercussions in Syria as well. In Israel, most of the immigrants brought with them the social and cultural standards of advanced communities in Central and Eastern Europe. In the Persian Gulf area, until recently, economic and social progress tended to go hand in hand, but at a very slow pace. The exploitation of the oil resources of that region accelerated economic progress more than social advancement. A further contributing factor in Iran was the greater emphasis put by Reza Shah on economic development. It goes without saying, however, that there is room for great progress in that part of the Middle East in view of both its vast needs and its enormous potentialities.

Charles Issawi

The United Nations



INDICES OF ECONOMIC AND SOCIAL DEVELOPMENT OF THE  
COUNTRIES SURVEYED IN THIS NOTE

|               | (1)<br>National<br>Income | (2)<br>Foreign<br>Trade | (3)<br>Energy<br>Con-<br>sumption | (4)<br>Steel<br>Con-<br>sumption | (5)<br>Cement<br>Production | (6)<br>Mase.<br>Carried<br>on<br>Railways | (7)<br>Food Con-<br>sumption | (8)<br>Textile<br>Con-<br>sumption | (9)<br>Life Ex-<br>pectancy | (10)<br>Literacy<br>Rate %<br>of Inhab. | (11)<br>Newspa-<br>per Cir-<br>culation | (12)<br>Reg.<br>Radio<br>Sets |
|---------------|---------------------------|-------------------------|-----------------------------------|----------------------------------|-----------------------------|---|------------------------------|------------------------------------|-----------------------------|---|---|-------------------------------|
| Turkey .....  | 125                       | 26                      | 0.26                              | 10                               | 18                          | 121                                       | 2,690                        | 3.9                                | 38.6                        | 21                                      | 15                                      | 15                            |
| Egypt .....   | 100                       | 56                      | 0.15                              | 10                               | 54                          | 90  | 2,480                        | 3.2                                | 26.7                        | 15                                      | 18                                      | 11                            |
| India .....   | 57                        | 7                       | 0.10                              | 3 <sup>a</sup>                   | 7                           | 120                                       | 1,620                        | 2.1                                | 57.6                        | 9 <sup>c</sup>                          | 6                                       | 1                             |
| Japan .....   | 100                       | 22                      | 0.77                              | 80 <sup>a</sup>                  | 54                          | 369                                       | 2,100                        | 1.6                                | 51.7 <sup>b</sup>           | 95 <sup>c</sup>                         | 219                                     | 91                            |
| Philippines . | 44                        | 36                      | 0.10                              | 5                                | 16                          | 8   | ..                           | 1.1                                | ..                          | 50 <sup>c</sup>                         | 26                                      | 4                             |
| Argentina ..  | 346                       | 186                     | 0.76                              | 70                               | 99                          | 1,077                                     | 2,730                        | 8.1                                | 38.4                        | 83                                      | 207                                     | 94                            |
| Brazil .....  | 112                       | 46                      | 0.22                              | 20                               | 25                          | 144                                       | 2,340                        | 4.0                                | 37.4                        | 47                                      | 30                                      | 15                            |
| Chile .....   | 188                       | 106                     | 0.76                              | 28                               | 103                         | 420                                       | 2,350                        | 4.8                                | ..                          | 72                                      | 79                                      | 110                           |
| Mexico .....  | 121                       | 38                      | 0.60                              | 28                               | 58                          | 341 <sup>a</sup>                          | ..                           | 3.2                                | 50.0                        | 48                                      | 46                                      | 30                            |
| Greece .....  | 128                       | 69                      | 0.22                              | ..                               | 38                          | 50  | 2,490                        | 4.0                                | 55.7                        | 59                                      | 102                                     | 19                            |
| Italy .....   | 235                       | 63                      | 0.63                              | 52                               | 119                         | 239                                       | 2,370                        | 4.7                                | 58.8                        | 78                                      | 98                                      | 69                            |
| France .....  | 482                       | 154                     | 2.03                              | 182 <sup>a</sup>                 | 186                         | 978                                       | 2,680                        | 8.1                                | 68.4                        | 96 <sup>c</sup>                         | 284                                     | 172                           |
| Australia ... | 679                       | 373                     | 3.14                              | 200 <sup>a</sup>                 | 157                         | 1,292                                     | 3,210                        | 11.6                               | ..                          | 95                                      | 455                                     | 258                           |

(1) U.S. dollars, per capita, 1949.  
(2) Per capita value of imports and exports, in U.S. dollars, 1950.  
(3) Coal equivalent, in metric tons, per capita, 1950.

(4) Kilogrammes, per capita, 1947.  
(5) Kilogrammes, per capita, 1950.  
(6) Ton/kilometres, per capita.  
(7) Calories, per capita, 1948-1949.

(8) Cotton, rayon and wool, kilo-grammes per capita, average, 1948-1950.  
(9) At birth, average male and female.  
(10) Per cent of population 10 years of age or over, prewar.  
(11) Per thousand inhabitants, 1950.  
(12) Per thousand inhabitants, 1950.

a. Prewar.

b. 1914.

c. Estimate for adult population.



## THE EGYPTIAN LAND REFORM LAW\*

### EXPLANATORY NOTE TO ACCOMPANY LAND REFORM LAW

One of the most thorny questions commanding our attention is the low standard of living of most of our citizens owing to a reduced national income in relation to the population and the insufficiency of our production to provide an adequate standard of living for an ever-increasing population. To raise living standards it is necessary to reach a state of maturity in our economy with the least possible delay.

The Egyptian economy has until now faced an obstacle which has prevented it from achieving a rapid economic growth. This obstacle has been the rush of those possessing savings to invest their capital in agricultural land, the area of which has not increased in proportion to the demand. Nevertheless, agricultural lands have for Egypt constituted almost exclusively the avenue for capital investment.

The placing of capital in agricultural land has not increased the quantity of land available inasmuch as the investors rarely accept the risk of reclaiming land but compete in acquiring developed land providing an immediate income. Such an operation does not create new wealth but increases the price of the existing wealth. In this way the Egyptian cultivable land has become a drain which draws toward itself the greater part of Egyptian savings. The increase in the prices of agricultural lands has induced landowners to endeavor by all possible means to extract from the land a return proportionate

\*[Editorial note: The following texts have been made available to this journal by Mr. Thomas Stauffer, who has also prepared incidental notes, identified by his initials, T.S. Because of the rapid changes now taking place in Egypt and the topical interest of these documents, and the extended comments in the official Note, no attempt has been made to provide systematic or exhaustive additional comments.

Egyptian laws and decrees are published in Arabic and French texts, of equal authority, in the Official Journal, and go into effect usually from the day of publication. The English versions presented here are unofficial, edited but not prepared by Mr. Stauffer.

Each law or decree is customarily accompanied at its presentation to the enacting authority, Parliament or the Council of Ministers, by an Explanatory Note prepared by the Ministry concerned. While official and authoritative, such notes are not law in the same sense as the texts they accompany; but argument before the courts is often based on them. These Notes are published with the laws or decrees, setting forth the reasons for and intentions of the law, its relation to existing problems and laws, and to future projects.

1 feddan equals 1.038 acres approximately.]



to the price they have paid. The farmers, however, cannot increase their income by increasing the sale price of the produce. They have neither the authority nor the means to control crop prices inasmuch as they are fixed by the market and thus the only means the farmer has to cope with the situation is to compress his expenditures and the principal contraction takes place in the wages of agricultural labor.

There are, therefore, two factors:

1. The tendency to invest the major part of Egyptian savings in land yielding an immediate income.
2. The meager purchasing power of agricultural labor.

These two factors limit the possibility for economic growth in the field of agriculture, either by extending the area of cultivated land or by extending or establishing new industries.

To pave the road for rapid economic growth it is necessary to enact legislation to force new savings into land improvement enterprises and into mining, industrial, and building enterprises.

One of the principal aims of the land reform scheme is to direct new investment into the improvement of land and into mining, industrial, and commercial enterprise. If savers are compelled to look for new fields of investment the increased investment will, generally speaking, expand the wages paid to labor and consequently increase labor's expenditure and create new demand for Egyptian products, which demand will in turn encourage other new investment. In this way the country may complete its economic development and citizens will reach a living standard worthy of a country resolved to develop its economic potentialities.

So much for the economic aspects of the question. They are enough to justify the land reform measures but there are also social reasons which must not be ignored.

The distribution of wealth in Egypt contravenes the principles of social justice. Extensive areas of cultivated lands belong to a very small number of landowners while millions of people own small pieces of land; the cultivated area is 5,963,662 feddans and the total number of landowners, 2,760,661.

If we consider small properties we find that:

| <u>No. of Owners</u> |               | <u>Feddans Owned by Each</u> |           | <u>Total No. of Feddans</u> |
|----------------------|---------------|------------------------------|-----------|-----------------------------|
| 1,459,167            | possess up to | 1/2                          | totalling | 413,551                     |
| 522,172              | possess from  | 1/2 to 1                     | totalling | 356,695                     |
| 327,612              | possess from  | 1 to 2                       | totalling | 449,816                     |
| 152,293              | possess from  | 2 to 3                       | totalling | 254,855                     |
| 81,366               | possess from  | 3 to 4                       | totalling | 272,343                     |
| 56,589               | possess from  | 4 to 5                       | totalling | 247,017                     |

This means that 54 per cent of the landowners do not own more than 1/2 feddan, the total of their holdings representing 7 per cent of the whole cultivated land and that 2,308,951 own-



ers do not own more than two feddans, totalling 1,230,062 feddans. That is to say, 84 per cent of landowners hold 21 per cent of the land. Also, 2,600,199 owners do not hold more than 5 feddans, their holdings totalling 2,104,276 feddans; 94 per cent of landowners possess 35 per cent of the land.

#### Big Holdings

If we come now to big holdings we find that:

161 owners have more than 3,000 feddans each, holdings totalling 277,258 feddans.

68 owners have from 1,500 feddans to 2,000 feddans each, holdings totalling 97,454 feddans.

99 owners have from 1,000 feddans to 1,500 feddans each, holdings totalling 122,216 feddans.

92 owners have from 800 to 1,000 feddans each, holdings totalling 86,472 feddans.

This means that 180 owners possess 583,400 feddans, namely, that one-tenth of one per cent of the landowners possess 10 per cent of the whole land. If we consider holdings of more than 200 feddans, we find that 2,115 owners possess 1,208,493 feddans, or eight-tenths of one per cent possess 19 per cent of the land. (1) [See corrections, Addendum at end of article.]

The bad distribution of land wealth has resulted in social evils which came to an end in civilized countries with the end of feudalism but persist in this country up to our time.

Among the worst consequences of this state of affairs is that a class of a few big landowners has held in slavery an immense number of agriculturists and this class has directed the country's policy according to its own interests and in a manner altogether contrary to democratic principles.

Land reform was the basis of all subsequent social reforms in Western Europe in the nineteenth century, and in Eastern Europe and the Near East in the twentieth century. The time has come to carry out this reform in Egypt as a preliminary step to building Egyptian society on new bases, ensuring free life and dignity to each and all, abolishing the immense disparities between owners, bridging the deep differences between classes, and removing an important cause of social unrest and political troubles.

#### Compulsory Surrender of Property Exceeding 200 Feddans

To this end the annexed scheme has been prepared. The first chapter thereof limits land property and provides for the

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(1) [Of this land about 725,000 feddans will be expropriated or otherwise transferred under the new law. This is very roughly 11 per cent of the total arable acreage. See below for additional land from dissolved entails. In 1940, 49 per cent of landowners (those with 50-plus feddans) owned approximately 38 per cent of the arable land. There seems to have been a relative increase in the numbers of smaller holdings. T.S.]



compulsory surrender of land to be distributed to the small fellahin. Article I provides that the maximum of land property per owner shall be 200 feddans. From this provision there are excepted joint-stock companies and associations that improve land with a view to selling it, and private individuals who own fallow or desert land with the object of improving it within 25 years from the day they purchase it--such being the time necessary for land to be improved. These owners have the right to dispose of the land during this period.

The reason for this exception is to encourage a new land development, leading to an increase of the area of cultivated land by means of improved new land to be sold to small agriculturists, or to be kept by its original owner within the 200-feddan property limit.

Similarly excepted from this provision are industrial companies existing before the promulgation of the law and owning more than 200 feddans, if it is ascertained that this exception is necessary for industrial exploitation, with a view to preserving the capital now invested in agricultural industries. Wakfs (2) are excepted but only temporarily, pending the promulgation of special legislation.

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- (2) [Wakfs are entails of land, perpetual or for a fixed term, under Muslim religious law (sharia), administered by a special Ministry of cabinet rank. They are either private (wakf ahli) for the benefit of a family estate, or public (wakf khairy) for a charitable purpose. Private wakfs have been dissolved, and land concerned subjected to the general land reform law, by a decree of the cabinet reportedly dated 10 September 1952. Charitable wakfs are exempted.]

Land or accumulated funds of private wakfs will revert to the beneficiaries, or founders, and lands will then be subject to the general provisions of the new law. See the text of the Decree, below.

Wakf lands are apparently not included in the usual published figures for land holdings in Egypt, and published figures for wakfs do not distinguish between rural and urban land, royal estates, or the various kinds of wakfs.

It appears, however, that wakfs of urban land are small in area, and that royal estates are included in the figures below, for 1949-1950. "Wakf Khairy" lands were about 93,000 feddans (of which 3,000 feddans were "wakf al haramayn", endowments of the holy places and the pilgrimage). "Wakf ahli" lands, subject to the new decree, were 592,733 feddans, belonging to 17,816 individuals; 477,933 feddans belonging to the 574 individuals, the beneficiaries of wakfs of over 200 feddans, would be transferred under the new general law. This is about 2/3 as much as the non-wakf land to be transferred under the law, increasing the total from 785,000-plus feddans to 1,257,426-plus feddans, about 20 per cent of the arable land of Egypt.

(The reported expropriation of the royal estates, or part of them, would again increase these figures somewhat, if they are not included above.) T.S.]



Validity of Previous Disposals

Article 3 provides for the requisition by the Government of all amounts in excess of the maximum. A period of five years has been fixed as the time necessary for the completion of the requisition and distribution formalities. This article also decides that all disposals of the former owner are void, except those consummated prior to July 23, 1952. This is to prevent any "trick" on the part of owners with a view towards diverting capital away from our national movement.

It has also been decided not to take into account disposals of land by owners in favor of sons, wives, or sons' wives, when the date of such disposals is not prior to January 1, 1944 (in which year the inheritance tax was imposed), for some owners resorted to fictitious disposals of their property in order to avoid the tax.

It has also been decided not to take into consideration whatever might be done after promulgation of this law with regard to division of property owing to inheritance or testamentary disposition relating to land owned by one person. This is in order that no benefit may result for those who delay requisition of their land and, also, in order that no distinction be made for those for whom such requisition has begun.

Transfer of 100 Feddans to Children

Article 4 allows the owner to transfer part of his property to his children on the condition that the part transferred to each of them does not exceed 50 feddans per child, nor the total quantity of land thus transferred to such children be in excess of 100 feddans.

This article also allows the landowner to dispose by sale of the land on which the government has the right of requisition with the provisos that:

1. The buyer be not a seller's relative within the 4th degree, in order that the land may not be distributed to agriculturists on whom the owner has his former family influence, and
2. The buyer does not himself possess more than 10 feddans, so as to prevent sales to big landowners.

In both cases, it is not allowed to sell any private individual more than 5 feddans, the aim being to have the land distributed to the greatest possible number of agriculturists and not to deprive the landowners of such sale arrangements as are not contrary to the aims of the reform. (3)

Furthermore, to ensure that such arrangements are effective and to prevent the landowner from devising means to have the land he has sold returned to him, it has been provided that

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(3) [It is said that there would be some financial advantage in selling land at present, or pre-reform prices, if they are maintained, rather than in accepting the proposed rates of compensation. T.S.]



no opposition whatever shall be admitted against the purchaser, on the grounds of alleged fictitious sales.

Compensation to Those Owners Whose Lands  
Have Been Compulsorily Surrendered

Article 5 provides for the compensation the government shall give to owners whose land is to be requisitioned.

It shall be ten times the rent value of the land, taking as a basis the land tax. This same basis of reckoning is taken into account in the valuation of lands for the application of the inheritance tax law. To the value thus arrived at, is added the value of the appurtenances of the land, such as buildings, machinery, and trees.

Means of Settling the Compensation

Article 6 shows the way compensation will be effected. Treasury Bills shall be issued bearing 3 per cent interest and redeemable in 30 years. These bills shall be issued in names of individuals, and are not to be sold except to Egyptians in order to prevent the escape of Egyptian capital. Also, to enable holders to effect payments of the price of fallow land that is sold by the Government, the Government will accept these bills in payment of what will be fixed when the law becomes effective concerning taxes on improved land and for the payment of inheritance taxes and supplementary land taxes decided by this law.

Mortgage and Servitude Rights

Article 7 provides, in substance, for the deduction of the value of the debt represented by these rights from the amount of the compensation the owner of the requisitioned land is to receive and for the safeguarding of the original creditor's rights.

How the Land Will Be Distributed

The provisions of Articles 8, 9, and 10 refer to the way the requisitioned land shall be distributed. First of all the land shall be marked out then distributed in allotments of not less than 2 feddans each, priority to be given to those persons who actually cultivate the land, those who have the most numerous families, the poorest of the village, and last, to those who do not live in the village.

The priority principle is that the land is for those who cultivate it and should the latter not enter the category of those entitled to land distribution, social factors shall be taken into account such as numerous children and poverty. Should there still remain land after distribution to such people of the village, the remainder shall be distributed to other people of other villages. However, as the cultivation of fruit gardens requires special care with which farmers in general are not well acquainted, their distribution shall be confined to



former students of agricultural institutions, on the condition that they are small agriculturists whose land and property does not exceed 10 feddans.

As the successful development of fruit gardens also requires a more extended area than that provided for the other cultivable land to be distributed, it has been decided that the fruit garden land may be distributed in allotments of up to 20 feddans.

#### Price of the Land and Requisition Expense

Article 11 provides the basis for the selling price of the land to be distributed. The price per feddan is made up as follows:

1. The compensation paid for requisition of the land.
2. 15 per cent representing the requisition, distribution and other expenses.
3. 3 per cent yearly interest, which is the rate of interest decided as compensation for land requisitioned.

The price thus reckoned shall be paid by the purchaser in 30 equal yearly installments.

#### Committees to Supervise Distribution

Articles 12, 13, 14 and 15 regulate the requisition and distribution operations which are entrusted to a Higher Committee assisted by Sub-Committees. The land to be distributed to those entitled to it is to be free from servitude or mortgage and registered in their own names free of charge. Both requisition and distribution must be finished within five years following the date from which the present law becomes effective, providing they begin in the regions where large land properties exist.

As the price of the land is paid by installments it has been provided for in Article 16 that those upon whom the land has devolved cannot dispose of it before its price is paid. Also, that compulsory surrender of land cannot be proceeded with in order to settle a debt, unless this debt is to the Government, a land bank, or a cooperative agricultural bank to which the landowner had recourse; this provision has been taken to protect the new landowner, on the one part, and to safeguard the debt to the Government on the other.

#### Sanctions Provided for in the Text of the Law

In Article 17 are detailed the sanctions inflicted upon those who would proceed with actions trying to prevent the carrying into effect of the provisions regarding the maximum land property (Article 1 of the law) the sanctions being imprisonment and expropriation of the land in excess of the maximum. (4)

- (4) [It is reported that a Military Order of General Headquarters, of 20 September 1952, assigns offenses against the land reform law to military instead of civil courts. Other details of the Order are lacking, but it does seem to be in effect. T.S.]



As some landowners may neglect to take care of their lands during the period that will elapse between the promulgation of the law and the requisition of the land, it has been provided to punish with imprisonment anyone who purposely causes decay to the appurtenances of the land with a view toward decreasing the value of the latter.

#### Agricultural Cooperative Societies

In view of the fact that numerous fellahin upon whom land is to devolve, notwithstanding their experience of land work, will be wanting knowledge of agricultural administration, it has been provided for the Second Chapter of the Law that societies for agricultural cooperation shall be set up which all small agriculturists of one or several villages must compulsorily join. These societies shall proceed in the place of these agriculturists with all that is necessary for financing crops, supplying implements, systematizing the agricultural developments and selling the staple crops; they shall also proceed with the rendering of various agricultural and social services.

As the cooperative spirit is still beyond the small fellah's comprehension, it has been decided to place the cooperative societies under the control of an official chosen by the Minister of Social Affairs. To strengthen the position of these new societies it has been provided for that they may unite into general cooperative societies and cooperative unions. (5)

#### Forbidding the Fragmentation of Landed Property

As large properties are not desirable so it is with very small ones, for they reduce the land production and deprive their owners of a suitable standard of living. For this reason, Articles 23 and 24 (Chapter III) have dealt with the questions of the fragmentation of property with a view to increasing future crops in order to cope with the increasing population and the division of land through inheritance or by other means of acquisition of property. As, on the other hand, it has been deemed that the smallest property should be limited in the future to 5 feddans only, it has been provided that should it happen that property has to be divided into lots of less than this area then the last must be given to one of those who have a share in it, precedence being given to the one who is engaged in agriculture; and should they not agree on the price of the land, then the land shall be sold by auction.

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- (5) [Law 58 of 1944, a parliamentary enactment referred to in the text of this decree, permits the developments here made mandatory, and considerably healthy progress had been made with voluntary cooperatives, especially in conjunction with the Rural Social Centers. There had also, however, been abuses due to preponderance of large owners in the societies, especially regarding the purchase and use of large machinery useless on small plots. In other places, however, cooperatives had broken the monopolies of private owners of machinery. T.S.]



Increasing by 500 Per Cent the  
Land Tax for Excess Land

In Chapter IV, a 500 per cent tax on the normal land tax is imposed on any land in excess of the maximum property fixed by law, the aim of this supplementary tax being to induce owners to sell their surplus land to small agriculturists during the period that will elapse between the promulgation of the law and the end of the requisition period. From the supplementary tax fallow land owned by private individuals or companies with a view to encouraging the sale of land after it is improved has been exempted. This provision was made in order to encourage the agricultural development of new land.

Organizing the Relationship  
Between Lessee and Owner

As the fellahin have no other source of revenue except the cultivation of land, they cannot but accept to have it leased to them on very oppressive conditions. Chapter V has regulated the relationship between lessee and owner on the basis of justice and protection of the weaker from exploitation by the stronger. Article 32 has provided that land cannot be leased to anyone but those who cultivate it themselves, to prevent exploitation by intermediaries. This provision does not forbid the founding of cooperative societies for the development of cultivable land by lease.

Limiting the Land Rent at Seven Times the  
Amount of the Land Tax

Article 33 provides that the land rent shall not exceed seven times the original tax on land. Thus the amount of the land rent equals the rent value established by the Government as a basis for the land tax, since the land tax equals 14 per cent of the rent value of the land or approximately 1/7 of it. Limiting the land rent makes the share of the landowner equal to what he would have himself withdrawn from production and prevents the exorbitant imposition of rents which have become a burden to small agriculturists and large numbers of consumers of agricultural produce.

Preventing Landowners from  
Not Leasing their Lands

As limiting the lease value might induce landowners to abstain from leasing their lands, it has been provided that it is not permissible to dislodge anyone who cultivates the land himself, be it an original tenant or subtenant; in the latter case Article 37 regulating the relationship between landowner and tenant applies.

With a view towards giving agriculturists enough time to settle and to satisfactorily develop the land, a minimum duration of the lease contract (three years) has been laid down, which is in accordance with the usual three-year agricultural cycle (Article 35).



Rights of the Land Laborers

Lastly the law provides, in Chapter VI, that a special committee shall fix agricultural workers' wages in every agricultural region, and gives them the right to set up unions for the defense of their group interests.

In view of the necessity to carry out the reform provided for in the scheme soon, the latter has been prepared in the shape of a decree-law, in compliance with Article 41 of the Constitution and submitted to the Council of State, (6) which approved it in the annexed form.

TEXT OF THE EGYPTIAN LAND REFORM LAW

Approved by the Council of Ministers  
September 9, 1952

CHAPTER IArticle I

It is forbidden for anyone to own more than 200 feddans of agricultural land. Any contract violating this provision is void.

Article II

The following are exempted from the provisions of the above article:

a. Companies and societies shall have the right to own more than 200 feddans of the land which they reclaim for the purpose of selling within the limitations of the stipulations of laws and by-laws in force.

b. Individuals shall have the right to own more than 200 feddans of barren and desert land if they do so for the purpose of reclamation. Article I will not apply to lands of this type before the lapse of 25 years from the date on which they became the property of individuals. Such land, however, may be disposed of before the lapse of this period.

c. Industrial companies existing before the operation of this law shall have the right to own agricultural lands necessary for industrial activity even in excess of 200 feddans.

"Wakfs" are also excepted.

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(6) [The Council of State, unlike the Council of Ministers (the Cabinet), is a non-political body with permanent personnel, and a judicial, not a legislative or executive body. It is a sort of Supreme Court and a Superior Administrative Court combined, responsible, among other functions, for the due legal form and constitutionality of laws and decrees, prior to their promulgation. T.S.]



Article III

The government shall expropriate within the next five years starting from the date of the application of the law, land exceeding the limit allowed. The annual total expropriations made should not be less than 1/5 of the total area liable to expropriation.

Expropriation shall start with the largest estates. Fruits and crops on the expropriated lands shall remain the property of the expropriated landowner until the end of the agricultural year in which expropriation is effected. In application of the law, the following transactions shall be considered void:

a. Mortgages and transactions made by the landlord after 23 July 1952.

b. Transactions to descendants, wife, and descendants' wives or husbands whose date of completion is not proved to have been before 1 January 1944.

c. Division of land, owned by one person, arising from inheritance or wills. The State shall expropriate lands exceeding 200 feddans after collecting death duty.

Article IV

Landowners shall have the right within the next five years following the application of the law to transfer the property exceeding 200 feddans to:

a. Their children at the rate of 50 feddans each, provided that the total land property transferred does not exceed 100 feddans.

b. Small holders, non-relatives, or relatives beyond the fourth degree, who do not own more than 10 feddans, provided that the total land transferred to each does not exceed 5 feddans. The landlord will not be able to attack this transaction on the grounds of its being fictitious even if a counter document is presented. This transfer of property shall not, however, be legal unless it is approved by the Summary Court in whose jurisdiction lies the land. Lands transferred cannot be claimed by the right of pre-emption. (7)

Article V

Expropriated landowners shall have the right to a compensation at ten times the annual rent plus the price of buildings, trees and machinery on the land. The annual rent shall be estimated at seven times the annual tax imposed on the land.

If a person owns the land and another the right of usufruct, the former shall have 2/3 of the compensation and the latter 1/3.

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(7) [According to the Egyptian and Islamic laws neighbors have a claim on properties transferred if ready to pay the same price, i.e., by pre-emption. T.S.]



Article VI

Compensation shall be paid in the form of bonds on the public treasury bearing 3 per cent interest to be liquidated in 30 years. These bonds shall be nominative and non-transferrable except to Egyptians. These bonds shall be accepted by the Government as a price for barren lands purchased from the Government and in paying land taxes, death duties, and additional taxes imposed according to this law.

A decree shall be issued at the request of the minister of finance to fix dates and conditions of the bonds' liquidation and conditions of their circulation.

Article VII

If the expropriated land is mortgaged or is subject to prior charges, a sum equal to this mortgage is to be deducted from the compensation due to the landlord. If the Government is not willing to replace the debtor it may convert it into bonds bearing the same interest of the debt. These bonds shall be liquidated within a period not exceeding 30 years.

Article VIII

Expropriated small plots shall be assessed and in case of necessity can be combined. Lands dividing these expropriated small plots can in turn be expropriated, their owners being given equal land in other parts.

Article IX

Expropriated land shall be redistributed in every village to small peasants in such a way that every one of them shall have no less than 2 feddans and no more than 5 according to the quality of the land.

Persons benefiting from this redistribution must be:

- a. Adult Egyptians not previously convicted of crime.
- b. Cultivators by trade.
- c. Owners of less than 5 feddans.

The following priority system shall be adopted in redistributing the expropriated land: (a) persons who are actually working the land whether as tenants or farmers; (b) inhabitants of the village who support big families; (c) the most needy of the inhabitants; (d) inhabitants of other villages.

Pre-emption is not applicable in the distribution of land.

Article X

Exception to the above rule shall be made in the case of redistribution of orchards to the graduates of agricultural and technical institutes in plots of no more than 20 feddans.



Graduates benefiting from this distribution will be restricted to those who do not own more than 10 feddans.

#### Article XI

The price of the redistributed land shall be estimated at the compensation paid by the State to the expropriated land-owners plus

a. 3 per cent annual interest.

b. A further 15 per cent of the price of the land to meet expenses incurred by the State in expropriating and distributing the land.

The total sum shall be paid back to the State in 30 annual installments.

#### Article XII

A higher committee shall be set up to supervise expropriation and distribution of lands. This committee shall consist of:

Minister of Agriculture -- President  
Undersecretary of Agriculture -- member  
Undersecretary of Social Affairs -- member  
Undersecretary of Economy -- member  
Undersecretary of Public Works -- member  
Undersecretary of Finance -- member

In addition to this, seven other members will be appointed by the Council of Ministers. This committee shall have the right to seek the help of experts and technicians.

#### Article XIII

Sub-committees shall be set up if necessary to expropriate, combine and redistribute the expropriated land.

The way these sub-committees will be formed, relations between them and the higher committee and control of their activities in expropriating land, assessing buildings, machines, and trees, distributing land, and arrangements to be taken by them during the period between expropriating and distributing the land, shall be dealt with by a decree-law.

#### Article XIV

Lands shall be given to the small landowners free of all debts and tenants' rights and registered in his name free of charge. The peasant who benefits from the redistribution shall work the land himself in a satisfactory manner.

#### Article XV

Redistribution shall be completed within the five years following the application of this law in accordance with a program to be worked out by the higher committee. This program shall provide that expropriated lands shall be redistributed in the same year towards the end of the agricultural season.



Article XVI

The owner of the land and his descendants shall not have the right to dispose of the land before its price is fully paid to the State. Before this price is paid, the land shall not be liable to expropriation or sale for debts, unless such debt is due to the State, the Agricultural and Cooperative Bank, or the Cooperative society. However, if expropriation of any part of the land for public utility is necessary, this will be done by public works' ministerial order in exception of Article No. I of Law No. 5, 1907. This order will have the force of the decree mentioned in the aforesaid law.

Article XVII

Any person attempting to violate the provisions of these articles shall be imprisoned in addition to having confiscated the land liable to expropriation.

Any owner of land liable for expropriation who intentionally lowers the fertility of the land for the purpose of rendering it useless at the time of expropriation shall be imprisoned. Likewise, anyone who intentionally violates Article IV of this law shall also be imprisoned.

CHAPTER IIAgricultural CooperativesArticle XVIII

An agricultural cooperative made of peasants who benefit from the redistribution of land and peasants who own no more than 5 feddans shall be set up by the force of this law in every village.

If necessary one cooperative can be set up for more than one village by a decision of the Minister of Social Affairs. These cooperatives shall be regulated in compliance with Law No. 58 of 1944 concerning Egyptian cooperatives and the following articles:

Article XIX

Cooperatives shall perform the following functions:

- a. Issuing agricultural loans to its members according to the needs of their lands.
- b. Providing members with seeds, fertilizers, cattle, agricultural machinery, and means of storage and transport.
- c. Organizing the tilling of land and exploiting it in the most efficient manner and combatting pests and digging canals and drainage.
- d. Selling main crops to the account of its members and deducting land payment installments, taxes, agricultural and other loans from their price.
- e. Rendering all other agricultural and social services.



Article XX

Agricultural cooperatives shall discharge their duties under the supervision of an official selected by the Ministry of Social Affairs. This official may supervise more than one cooperative.

Article XXI

Agricultural cooperatives are to form general cooperative societies and federations in compliance with law No. 58 of 1944 on Egyptian cooperative societies.

Article XXII

The Minister of Social Affairs will issue the resolutions necessary for the organization of the work of cooperative societies within the laws mentioned above.

CHAPTER IIILimitation on Breaking up Agricultural LandArticle XXIII

Should the occasion arise to break up agricultural land to less than 5 feddans through sale, exchange, inheritance, donation, or any other means of acquiring land ownership, those concerned shall decide to whom the ownership would go. In case of disagreement the matter should be referred to the Summary Court in the district where the most valuable lands lie, if this should be requested by anyone of those concerned or by the Parquet.

Should there be no one to take over the remaining shares, the Court will order the sale of the land through auction.

No fees will be paid for such a case.

Article XXIV

The Summary Court will consider cases of Ownership of undividable plots of land among those who work in agriculture. Distribution will be effected by drawing lots in case they are all agriculturists. If ownership arises from inheritance, priority will be given to agriculturists. If this applies to all heirs, the husband comes first, followed by the son. If there are more than one son, a decision will be reached by drawing lots.

CHAPTER IVAdditional TaxesArticle XXV

As from January 1, 1953, an additional tax will be imposed on land holdings in excess of 200 feddans equal to five times the original tax.



Article XXVI

The additional tax is to be calculated on the basis of the total taxes on agricultural holding to any one person all over the country on January 1 of every year. If a person has a share in different joint terriers (official register of extent and boundaries of landed estate) as a result of inheritance or any other reason, the taxes paid by him on his own terriers plus his share in taxes imposed on joint terriers shall be taken into consideration when the additional tax is calculated.

No deduction will be made from additional taxes if a person is paying taxes on land that was subject to one of the transactions outlined in Article No. 3.

Article XXVII

Every person to whom this law is applicable shall submit within two months of its coming into effect and on January 1 of every year to the cashier of the district in which he pays the largest part of the tax on his lands, a statement showing the acreage of land which he owns or benefits from, in all parts of the country and the taxes due on such holdings.

Article XXVIII

If a person does not submit the statement mentioned above on the dates shown or should he give false statements to avoid payments of additional taxes in part or full, a fine equal to five times the tax lost or which would have been lost to the Treasury, will be imposed on him and he will be ordered to pay the tax itself as well. The fine will be decided by one of the committees formed by the Minister of Finance and Economy for this purpose and its decision will not be subject to appeal.

Article XXIX

The additional tax together with the fine shall be collected with the last installment of the original tax. In collecting the additional tax and the fine, the government will have the same privilege of priority as in collecting the original tax. Administrative seizure will be applied in the case of non-payment.

No additional tax will be collected on the lands disposed of in a contract which is legally endorsed, up to the time of collecting the last installment of the original tax.

Article XXX

Barren lands owned by individuals and lands owned by companies or societies for reclamation and sale according to the rules and laws laid down, will be exempted from the additional tax.



CHAPTER VRelations Between Tenants and OwnersArticle XXXI

The relations between tenants and owners of agricultural lands are to be regulated according to the following rules as from the beginning of the agricultural year following the application of this law.

Article XXXII

Agricultural land is to be rented only to those who cultivate it themselves.

Article XXXIII

The rent should not exceed seven times the original tax imposed on the land. In case of the rent being on a crop sharing basis, the owner should not take more than half after deduction of all expenses.

Article XXXIV

The tenant has the right to claim from the owner any sum which he has paid in excess of the limit set in the previous article. He can prove this by all kinds of evidence.

Article XXXV

Land should be leased for not less than three years.

Article XXXVI

The contract should be written whatever its value may be. Two copies should be made and tenant and owner should each keep a copy.

Should there be no written contract, rent should be based on crop sharing for three years, during which period tenant and owner will divide it equally between themselves after deduction of all expenses.

Article XXXVII

While the foregoing rules are observed and as an exception to Articles Nos. 598 and 599 of the Civil Code, no one cultivating the land himself, whether an original tenant or a sub-tenant, can be expelled from the land. In the latter case relations shall be direct between the sub-tenant and the owner.



CHAPTER VIThe Rights of the Agricultural WorkerArticle XXXVIII

The wages of the agricultural worker in the different agricultural districts will be fixed every year by a committee appointed by the Minister of Agriculture. It will be headed by a prominent official of the Ministry with six members chosen by the Minister, three members representing the landowners and land tenants, and the other three representing agricultural workers.

The decisions of these committees will require the approval of the Minister.

Article XXXIX

Agricultural workers can form unions to defend their common interests.

Article XL

Ministers should apply this law each within his own sphere as from the date of its publication in the official Journal.

TEXT OF THE DECREE ABOLISHING PRIVATE WAKFS

[Press reports give the date 10 September 1952, and 12 September 1952. The press reports do not include the explanatory note for this Decree. T.S.]

Article I

No wakf is allowed except for pious purposes.

Article II

All Wakfs which are not, at this time, intended for pious purposes, are considered terminated. Should the "wakef" (founder of a wakf) have disposed in his wakf for pious purposes of amounts determined or to be determined and stipulated along with such dispositions that the remainder of the wakf income shall be used for non-pious purposes, the wakf shall be considered terminated with the exception of a part in jointly held property, the income of which warrants the payment of the amounts for pious purposes. In the valuation of this part and its separation the provisions of Art. 41 of Law 48 of 1946 re wakfs shall be applied.

Article III

That part of the wakf which is terminated in accordance with the provisions of Art. II as above, becomes property of the "wakef" if he is alive and has the right of reversion. If he is not, the property devolves upon the present wakf benefi-



ciaries, each of them in proportion to his share. Should the wakf follow the descendants, the property thereof shall devolve upon the present beneficiaries and the offspring of those deceased of the beneficiaries, each of them in proportion to his own or his parent's share. To determine the amount of this share, the provisions of Arts. 36, 37, 38, and 39 of Law 48 shall be applied.

#### Article IV

As an exception from the provisions of the preceding article, the property shall not revert to the "wakef" if it is ascertained that the right of his successor in the wakf is a money compensation or a warranty of permanent rights on behalf of the "wakef", in conformity with the provisions of Art. 11 of Law 48 hereabove mentioned. In this case, the right of warranty devolves upon the beneficiary who succeeds the "wakef" in proportion to his share, as indicated in the preceding article. The "wakef" shall enjoy this right as long as he lives.

The officially testified "wakef's" declaration in receipt of the compensation or confirming his rights, shall be considered a writ against all those interested in this matter, provided it is issued within 30 days following the coming into effect of the present law.

#### Article V

The regulations of the preceding articles shall be applicable to the "exchange moneys" (coming from the sale of wakf property pending the purchase of another property in its stead) deposited with the tribunals and what is set apart from the net income for repairs or maintenance purposes.

#### Article VI

Those on whom the property of a building or part of a building or even a usufructuary right in it, will devolve in compliance with the provisions of the present law, shall give publicity to these rights in accordance with the formalities and regulations regarding publicity of inheritance rights provided for in Law 114 of 1946, concerning publicity of immovable property. The Minister of Justice shall publish detailed provisions regarding this publicity.

#### Article VII

Following the abolition of wakfs all "hokr" (reversionary) rights on land the wakf of which is terminated according to the provisions of the present law, are also considered terminated. In this case, provisions of Art. 1008 and following of the Civil Law apply.

#### Article VIII

The "sharia" tribunals will continue to hear the partition cases brought before them to determine the parts in the wakfs that have been terminated by the present law.



The sentences released by these tribunals on such matters shall be as valid as the ones released by the Civil Tribunals in partition of property cases.

#### Article IX

All texts contravening the present law are rescinded.

#### Article X

The Minister of Justice is charged with the execution of the present law which becomes effective as of the date of its publication in the official Journal.

Thomas Stauffer

University of Chicago

#### ADDENDUM

##### Suggested Correction of Figures for Big Holdings

On August 15, 1952 the Cairo newspaper, al Ahram, published figures on big land holdings which appear to be more correct than those published in the unofficial text of the note reprinted above. These figures have been adapted to the style of the Note: it appears that there are 58 owners of 2,000 or more feddans totalling altogether 277,258 feddans; 32 owners of 1,500-2,000 feddans, totalling 97,454; 103 owners of 1,000-1,500 feddans, totalling 122,216; and 90 owners of 800-1,000 feddans, totalling 86,472. There are, further, about 152,000 owners of from 5 to 200 feddans, totalling 3,276,000, about 45 per cent of the arable acreage.

The 283 owners of holdings over 800 feddans, one-hundredth of one per cent of the landowners, own 10 per cent of the land. The 2,145 owners of holdings of over 200 feddans, own 1,208,493 feddans, and are together eight-hundredths of one per cent of the landowners who own 20 per cent of the land.

The figures in al Ahram were called to my attention by Dr. Moshe Perlman and by Dr. Peter Franck. Dr. Perlman has published them in full, with additional data on alien land owners, in Middle Eastern Affairs, August-September, 1952.

T.S.



## JAPANESE AGRICULTURE: THE LAND AND THE PEOPLE

This is the third economic study made by Mr. Grad on parts of what was the Empire of Japan, the others being his Modern Korea and Formosa Today, all published under the auspices of the Institute of Pacific Relations.\* It, like the others, is a valuable addition to the literature on current economic and social problems in the Far East, particularly since Mr. Grad draws many of his data from Japanese-language sources. In his foreword Mr. William Holland notes that this is a preliminary study, that it is designed primarily to state problems rather than to solve them, and that the sources used often reflect the deliberately obfuscatory tendencies of farmer and official alike during the Occupation Period. These qualifications are fortunate, for the reader might otherwise be carried away by the feeling of the study itself, which seems oriented toward the immediate solution of the problems stated.

The bulk of the text consists of a description of the Japanese agricultural system. The setting for agriculture, crop associations, farming practices, and technical problems of agriculture are described and analysed. More valuable are descriptions of land reform and its attendant problems, village organization, farm family organization, farmers' unions, and agricultural cooperatives, each in separate chapters.

Mr. Grad's argument is that Japanese agriculture must increase output, that output can be increased, that land reform is of little significance in this process since taxes have replaced the farmer's rents to the landlord as a control over his income, that the "old system" of government and social controls in Japan has been preserved behind a facade of "democratic" action, that the end of the Occupation means an almost certain return to the prewar depressed and oppressed state of the Japanese farmer. He points to the existing chain of policy control in agriculture which emanates from the central government and extends down through the local Agricultural Adjustment Commissions, the Land Commissions, Village Assemblies, and the village mayors, and to the neglect of the buraku, or true villages, also as an indication of rural dominance by the prefectural and national governments. He points with some hope, however, to the postwar Farmers' Unions, which though numerically weak represent a new voice for the farmer. He describes and explains the relatively weak position of the agricultural cooperatives, successors to the former agricultural associations, and he warns of the pressure of government on the activities of the countryside as a whole, with fixed-price collection quotas of farm produce as its key weapon.

All of these points are well taken, and the problems described are very real. Land reform has not resulted in an emancipation of the Japanese farmer from all obligations, and it apparently has not radically improved his financial position, as

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\*Andrew J. Grad, Land and Peasant in Japan, New York: Institute of Pacific Relations, 1952, 262 pp., \$3.50.



deficit budgets of Japanese farm families indicate. Whether it has raised his morale enough to raise productivity remains another matter. Mr. Grad, however, permeates his discussion with what appears to be an extreme hostility toward what was (and is in large part) the established Japanese economic and cultural order. He tends to separate the Japanese farmer, whom he always calls a "peasant" and with whom he closely identifies himself, from all other Japanese and from Japanese society, much as he had separated the Koreans from the Japanese and the Taiwanese from the Japanese in his previous studies. This indicates a predisposition which leads to criticisms of a somewhat irrelevant and, at least in one case, humorous nature. For example, in his section on "Mayors," Mr. Grad presents a schedule showing the daily official activities of a mayor in Yamagata Ken and then comments:

Too much time is spent on long and pointless talks to all kinds of organizations. Out of office hours such activities might be justified, but this is not the case. As a result, the actual burden of work falls upon the vice-mayor, a person not elected by the population and often an old official. In such cases elections become a facade behind which the old system is preserved.

Rather than adduce this state of affairs to deliberate policies on the part of the government or local vested interests, it would have been more significant perhaps to point to the characteristic speech-making activities of mayors everywhere.

Again, in his concern for the welfare of the Japanese farmer, after noting quite perceptively that obligatory deliveries of farm produce at fixed prices constitute a major, if hidden, tax, the author fails to note that in the postwar period the farmer, poor as he may be, has been much better able to bear additional burdens of taxation than the urban dweller whose entire livelihood has been destroyed in many cases or even the townsman whose income had been severely curtailed. The fact that the Japanese farmer traditionally has been the overly taxed and oppressed supporter of the Japanese political economy is an unfortunate coincidence, but a coincidence just the same which does not automatically condemn the efforts of a defeated government to finance its operations by whatever means have been at its disposal. The author's predisposition is indicated also in that his discussion of the improvements in the farmers' position in the postwar period consists of only one paragraph of one chapter, although in that paragraph the improvements are shown to be noteworthy, and indicate considerable changes for the betterment of economic position and morale.

In his concluding chapter, however, Mr. Grad states:

It is a mistake to regard the Japanese government as a monster which as soon as the Occupation authorities leave the scene, will turn upon the peasants and gobble them up or throw them to bloodthirsty "land barons."

Instead he argues that the considerable reforms under the Occupation will be destroyed by forces "inherent in the economic, social, and legal framework of Japanese society as reconstituted after the war." It is unfortunate that in his text this dis-



inction is not made clear, since the Japanese Government, perhaps justifiably, is consistently described as hostile to the farmer's interest, and as an integral consequence of the destructive "framework" in the above reference.

Some of this lack of clarity may be due to the rather disjointed organization of the study, in which, for example, between the chapters on "agricultural methods" and "mechanization of agriculture," and the discussion of "agricultural techniques" intervene five other chapters. It would appear, in fact, that many of the chapters were written at quite different times and were put together later according to an ex post facto ordering. Continuity certainly has been lost, although the end of chapter summaries are an aid, when they appear.

Mr. Grad is perhaps most vulnerable when discussing Japanese agriculture in its physical terms rather than in its relations to government and social milieu. Numerous inconsistencies can be noted; for example, the statement (page 188) that "a substantial area of cultivable land not yet brought under cultivation exists in Japan," and another statement (page 201) that "the possibilities for the expansion of the cultivated area are few." There are errors or misinterpretations, too, that are unfortunate. For example, in discussing irrigation the author notes the deflection of water to the fields from rivers and canals through distributary systems, but in his discussion of fertilizers he states: "One way to do so [to add nutrients to the soil] is to flood the fields with river waters carrying soil from the uplands. Most Japanese rivers, however, are diked, and if the dikes fulfill their function this source of renovation of the soil is closed". (p. 101) In fact, of course, water is deflected, often through sluices along the dikes, onto the fields from streams carrying upland silt in suspension, and it is this very silt which helps make for greater yields.

He argues for a "complete break" with traditional farming methods in order to raise per capita productivity and yields, although one of his panaceas, the common ownership of agricultural land, is recognized by him to be out of the question at this time. He urges crop rotation in which rice alternates with forage grasses, as demonstrated in Hokkaido experiments, although in a six-year period the amount of rice produced is less than without crop rotation, arguing that the gains in food supply from hay-fed animals would more than make up for the loss in rice. The fact that an initial investment in animals is necessary, in addition to an assured supply of grazing land and feed, is ignored. He argues against the transplanting of rice, noting, as have all who have gone before, that it is a laborious process. But what he fails to note also is that it is a labor-saving process, since weeding and water control in the early stages of the growth are easier in the smaller plots. Although he observes that in the absence of transplanting rice would have to be sown before the wheat harvest where double-cropping is practiced, his solution is to interplant the rice between the rows of maturing wheat without flooding. In fact, however, the lack of water and water control in the early stages of rice's growth and the inability to freely harrow, weed, and fertilize the young rice plants without flooding could result only in a decline in gross productivity. Conversely, he fails to argue for improved field drainage, although bad drainage prevents double-cropping in some 40 per cent of the paddy fields of the Kanto Plain, nor does he



recognize the need for improved processing and marketing facilities which will cut down the waste and spoilage of food stuffs, which results in losses as high as 10 per cent of given crops.

Mr. Grad vigorously espouses the mechanization of Japanese agriculture, and notes quite correctly that to some extent it already is taking place, as evidenced by the use of mechanical pumps and threshers. However, he cites as an example of the possibilities for mechanization a source which describes 74 per cent of the cultivated area in Japan as "level," and concludes that mechanization in the form of cultivating machinery is possible on this area. Yet the term "level" is of course relative, and it is apparent in the Japanese countryside, even in the lowlands, that a very large percentage of the land possesses some slope, and that the ridges about the small fields most often separate a field at one level from a field slightly higher or lower. This, of course, is a consequence of the almost absolute levelling necessary for the cultivation of wet paddy. Furthermore, about a quarter of the relatively level land is in Hokkaido where mechanization is already most advanced, especially on non-irrigated lands, and where climatic conditions are less favorable for high productivity. It is worth noting also that the small fields surrounded by ridges hold rain water, necessary for irrigation where other sources are not available, much more effectively than larger fields, and that the mechanized production of rice in the southern United States, where the fields are irrigated only once and then drained, is about a third less than that in Japan where a second crop often is also obtained. Here again, an accelerated, and costly, drainage program would be necessary in Japan before harvesting combines could be used.

With regard to the labor force that might be freed were rapid mechanization to take place, Mr. Grad suggests a kind of WPA whereby "poor houses can be remade into more modern ones with local materials; straw roofs -- a permanent fire danger -- could be replaced with tiles; paving of the streets which now during and after rains represent quagmires; . . . there is an inexhaustible pool of projects of great significance which would raise greatly the level of the villagers' life." All this, of course, is on the assumption that mechanization (chiefly the use of tractors apparently) will not decrease yields, whereas in fact yields certainly would decline, all other factors being constant, there would be an increasing shortage of food, and, if the labor force were employed as suggested above, there would not be an increased output of non-agricultural materials which could be used to bring in food from elsewhere.

The limitations of his reasoning in these matters is suggested when he answers the objection against machine-harvesting of rice, which states that the Japanese need the rice straw for a variety of domestic and agricultural uses. He replies that the value of straw products produced in 1939 amounted to less than 2 per cent of the gross value of the country's agricultural production and "the loss of a few inches of straw cannot be of decisive importance for the problem of mechanization." Even assuming that machine harvesting would be an economically efficient process, it would have to be shown also that the added increment of per capita productivity gained by use of the machine would be greater than not simply the gross value of the products made of straw but also the value of the substitute materials



from which these products would have to be made. In the case of shoes, sacking, raincoats, roofing, mats, etc., the jute, cotton, rubber, corrugated iron, reeds, and the like would very likely cost significantly more than the field straw and in addition would have to be imported.

It would be singularly misleading to suggest that this study is of little value, despite these and other criticisms which could be made. On the contrary, Mr. Grad has brought together a wealth of information of great value and in large part has evaluated his materials and presents his conclusions in a meaningful and provocative manner. Certainly his overall conclusion, or assumption, that all is not sunshine and violets in Japanese agriculture, despite the reforms initiated under the Occupation, has much validity and needs to be stated. In proposing policies by which the status of the Japanese farmer and agricultural system could be improved, Mr. Grad recognizes the extreme, and hardly possible, changes in Japanese social and economic organization which would be necessary to implement them. Unfortunately, he exaggerates the hiatus which exists between the Japanese farmer on the one hand and the rest of his countrymen on the other. The blame for the difficult plight of the Japanese farmer, admittedly, even by Mr. Grad, less difficult than before the war, cannot be placed solely on a social system imposed upon the passive farmer. Rather, the farmer himself must be considered a part of and a participant in a social structure which remains strikingly monolithic and within which he is a forceful factor in working out his own destiny.

Norton S. Ginsburg

University of Chicago



## A LETTER FROM PROFESSOR D. R. GADGIL\*

It is evident that Mr. Cohen is very angry. It would also appear that his ire is roused at the spectacle of a wily oriental putting subversive views couched in lucid and persuasive phrases across unsuspecting American readers. In the circumstances, it might be helpful if it is made clear how my 'notes' were written and got published.

I happen to be a member of the Advisory Board of the Indian Planning Commission. The Board met immediately after the draft outline of the Plan was published, and discussed it for two days. During the discussion I mentioned most of the points elaborated in the 'notes.' At the end of the discussion members of the Board were asked by the Commission to send in fuller comments, within eight weeks, for consideration of the Commission. The 'notes' were set down in some hurry for being communicated to the Commission and with no view to publication, least of all in the U.S.A. Soon after the 'notes' were written (September 1951) I sent a copy to a colleague who was then at an American University and who showed them to some American friends at the University. In January 1952 I received an Air letter from one of these asking for permission to print the 'notes' in the first number of the journal of the Research Centre and demanding reply by cablegram. Without due consideration, as it would now appear, I replied that I had no objection to publication.

I suppose these facts were not known even to the editors of the journal, as they would otherwise have appended a note to the effect when publishing Mr. Cohen's comments. May I apologize to Mr. Cohen and other American readers who might have had similar reactions on reading the 'notes,' for the shock unwittingly administered? And may I congratulate Mr. Cohen on presenting, so admirably, an American view not only of the economic development of India but also of the permissible limits of freedom of expression in and outside the country? Indian readers should find Mr. Cohen's 'comments' both instructive and significant.

D. R. Gadgil

P.S.: I hold only a master's degree and no doctorate. This is a minor point, but might as well be made lest I am accused at some later date of sailing under false colours, or, at least, acquiescing in a wrong description.

D.R.G.

Poona, India

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\*[Our readers will recall Professor Gadgil's article, "Notes on the Government of India's First Five Year Plan, July, 1951," THIS JOURNAL, March 1952, pp. 57-72, to which Professor Jerome Cohen addressed "Some Comments on Dr. Gadgil's Notes," THIS JOURNAL, June 1952, pp. 139-144. The letter which follows was received too late for inclusion in our third number and is published herewith, at Professor Gadgil's request, to clarify how his 'notes' came to be written.]



